

	Nhe I										Linker						
1	GAT	CCA	GCA	GCT	GGG	CTC	GAG	GTG	CTA	GCG	GGA	GGG	GGT	GGA	TGT	GGG	
	D	P	A	A	G	L	E	V	L	A	G	G	G	G	C	G	
	<div style="display: flex; justify-content: space-around; align-items: center;"> <div>Factor Xa</div> <div> <div style="text-align: center;">Xa ↓</div> <div>Hind III</div> </div> <div>hu IgG1</div> </div>																
49	ATC	GAA	GGT	CGC	AAG	CTT	ACT	CAC	ACA	TGC	CCA	CCG	TGC	CCA	GCA	CCT	
	I	E	G	R	K	L	T	H	T	C	P	P	C	P	A	P	
97	GAA	GCC	GAG	GGG	GCA	CCG	TCA	GTC	TTC	CTC	TTC	CCC	CCA	AAA	CCC	AAG	
	E	A	E	G	A	P	S	V	F	L	F	P	P	K	P	K	
145	GAC	ACC	CTC	ATG	ATC	TCC	CGG	ACC	CCT	GAG	GTC	ACA	TGC	GTG	GTG	GTG	
	D	T	L	M	I	S	R	T	P	E	V	T	C	V	V	V	
193	GAC	GTG	AGC	CAC	GAA	GAC	CCT	GAG	GTC	AAG	TTC	AAC	TGG	TAC	GTG	GAC	
	D	V	S	H	E	D	P	E	V	K	F	N	W	Y	V	D	
241	GGC	GTG	GAG	GTG	CAT	AAT	GCC	AAG	ACA	AAG	CCG	CGG	GAG	GAG	CAG	TAC	
	G	V	E	V	H	N	A	K	T	K	P	R	E	E	Q	Y	
289	AAC	AGC	ACG	TAC	CGT	GTG	GTC	AGC	GTC	CTC	ACC	GTC	CTG	CAC	CAG	GAC	
	N	S	T	Y	R	V	V	S	V	L	T	V	L	H	Q	D	
337	TGG	CTG	AAT	GGC	AAG	GAG	TAC	AAG	TGC	AAG	GTC	TCC	AAC	AAA	GCC	CTC	
	W	L	N	G	K	E	Y	K	C	K	V	S	N	K	A	L	
385	CCA	GCC	TCC	ATC	GAG	AAA	ACC	ATC	TCC	AAA	GCC	AAA	GGG	CAG	CCC	CGA	
	P	A	S	I	E	K	T	I	S	K	A	K	G	Q	P	R	
433	GAA	CCA	CAG	GTG	TAC	ACC	CTG	CCC	CCA	TCC	CGG	GAT	GAG	CTG	ACC	AAG	
	E	P	Q	V	Y	T	L	P	P	S	R	D	E	L	T	K	
481	AAC	CAG	GTC	AGC	CTG	ACC	TGC	CTG	GTC	AAA	GGC	TTC	TAT	CCC	AGC	GAC	
	N	Q	V	S	L	T	C	L	V	K	G	F	Y	P	S	D	
529	ATC	GCC	GTG	GAG	TGG	GAG	AGC	AAT	GGG	CAG	CCG	GAG	AAC	AAC	TAC	AAG	
	I	A	V	E	W	E	S	N	G	Q	P	E	N	N	Y	K	
577	ACC	ACG	CCT	CCC	GTG	TTG	GAC	TCC	GAC	GGC	TCC	TTC	TTC	CTC	TAC	AGC	
	T	T	P	P	V	L	D	S	D	G	S	F	F	L	Y	S	
625	AAG	CTC	ACC	GTG	GAC	AAG	AGC	AGG	TGG	CAG	CAG	GGG	AAC	GTC	TTC	TCA	
	K	L	T	V	D	K	S	R	W	Q	Q	G	N	V	F	S	
673	TGC	TCC	GTG	ATG	CAT	GAG	GCT	CTG	CAC	AAC	CAC	TAC	ACG	CAG	AAG	AGC	
	C	S	V	M	H	E	A	L	H	N	H	Y	T	Q	K	S	
721	CTC	TCC	CTG	TCT	CCG	GGT	AAA	TGA									
	L	S	L	S	P	G	K	-									

FIG. 1

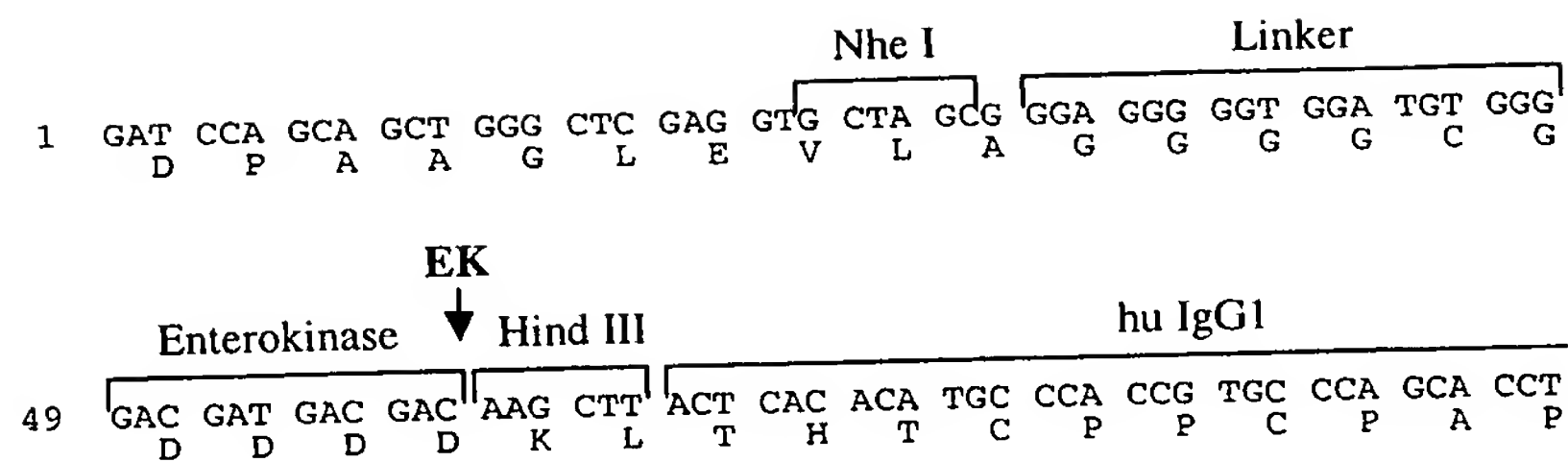


FIG. 1B

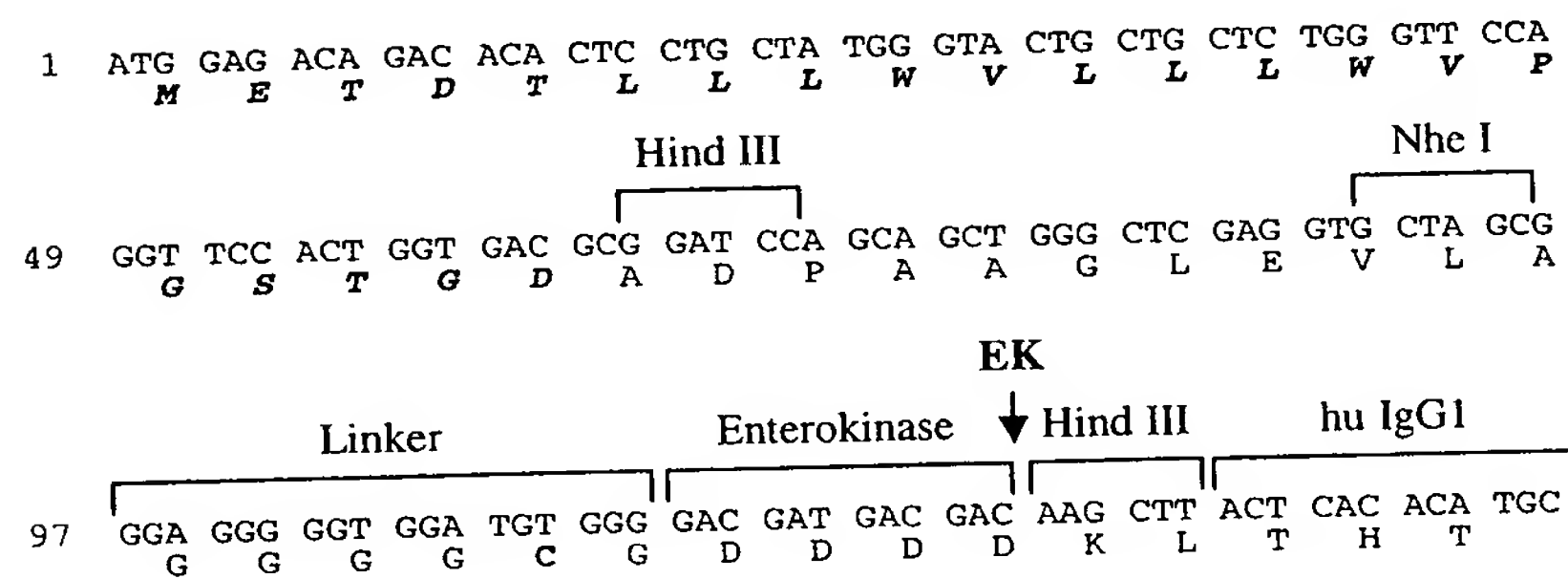


FIG. 1C

1 GGA TCC GGG ATG AAG AAC CTT TCA TTT CCC CTC CTT TTC CTT TTC TTC CTT  
M K N L S F P L L F L F F L

52 GTC CCT GAA CTG CTG GGC TCC AGC ATG CCA CTG TGT CCC ATC GAT GAA GCC  
V P E L L G S S M P L C P I D E A

103 ATC GAC AAG AAG ATC AAA CAA GAC TTC AAC TCC CTG TTT CCA AAT GCA ATA  
I D K K I K Q D F N S L F P N A I

154 AAG AAC ATT GGC TTA AAT TGC TGG ACA GTC TCC TCC AGA GGG AAG TTG GCC  
K N I G L N C W T V S S R G K L A

205 TCC TGC CCA GAA GGC ACA GCA GTC TTG AGC TGC TCC TGT GGC TCT GCC TGT  
S C P E G T A V L S C S C G S A C

256 GGC TCG TGG GAC ATT CGT GAA GAA AAA GTG TGT CAC TGC CAG TGT GCA AGG  
G S W D I R E E K V C H C Q C A R

307 ATA GAC TGG ACA GCA GCC CGC TGC TGT AAG CTG CAG GTC GCT TCC TCT CTA  
I D W T A A R C C K L Q V A S S L

358 GCG GGA GGG GGT GGA TGT GGG ATC GAA GGT CGC AAG CTT ACT  
A G G G G C G I E G R K L T

FIG. 2A

1 GGA TCC GGG ATG AAG AAC CTT TCA TTT CCC CTC CTT TTC CTT TTC TTC CTT  
M K N L S F P L L F L F F L

52 GTC CCT GAA CTG CTG GGC TCC AGC ATG CCA CTG TGT CCC ATC GAT GAA GCC  
V P E L L G S S M P L C P I D E A

103 ATC GAC AAG AAG ATC AAA CAA GAC TTC AAC TCC CTG TTT CCA AAT GCA ATA  
I D K K I K Q D F N S L F P N A I

154 AAG AAC ATT GGC TTA AAT TGC TGG ACA GTC TCC TCC AGA GGG AAG TTG GCC  
K N I G L N C W T V S S R G K L A

205 TCC TGC CCA GAA GGC ACA GCA GTC TTG AGC TGC TCC TGT GGC TCT GCC TGT  
S C P E G T A V L S C S C G S A C

256 GGC TCG TGG GAC ATT CGT GAA GAA AAA GTG TGT CAC TGC CAG TGT GCA AGG  
G S W D I R E E K V C H C Q C A R

307 ATA GAC TGG ACA GCA GCC CGC TGC TGT AAG CTG CAG GTC GCT TCC TCT CTA  
I D W T A A R C C K L Q V A S S L

358 GCG GGA GGG GGT GGA TGT GGG GAC GAT GAC GAC AAG CTT ACT  
A G G G G C G D D D D K L T

FIG. 2B

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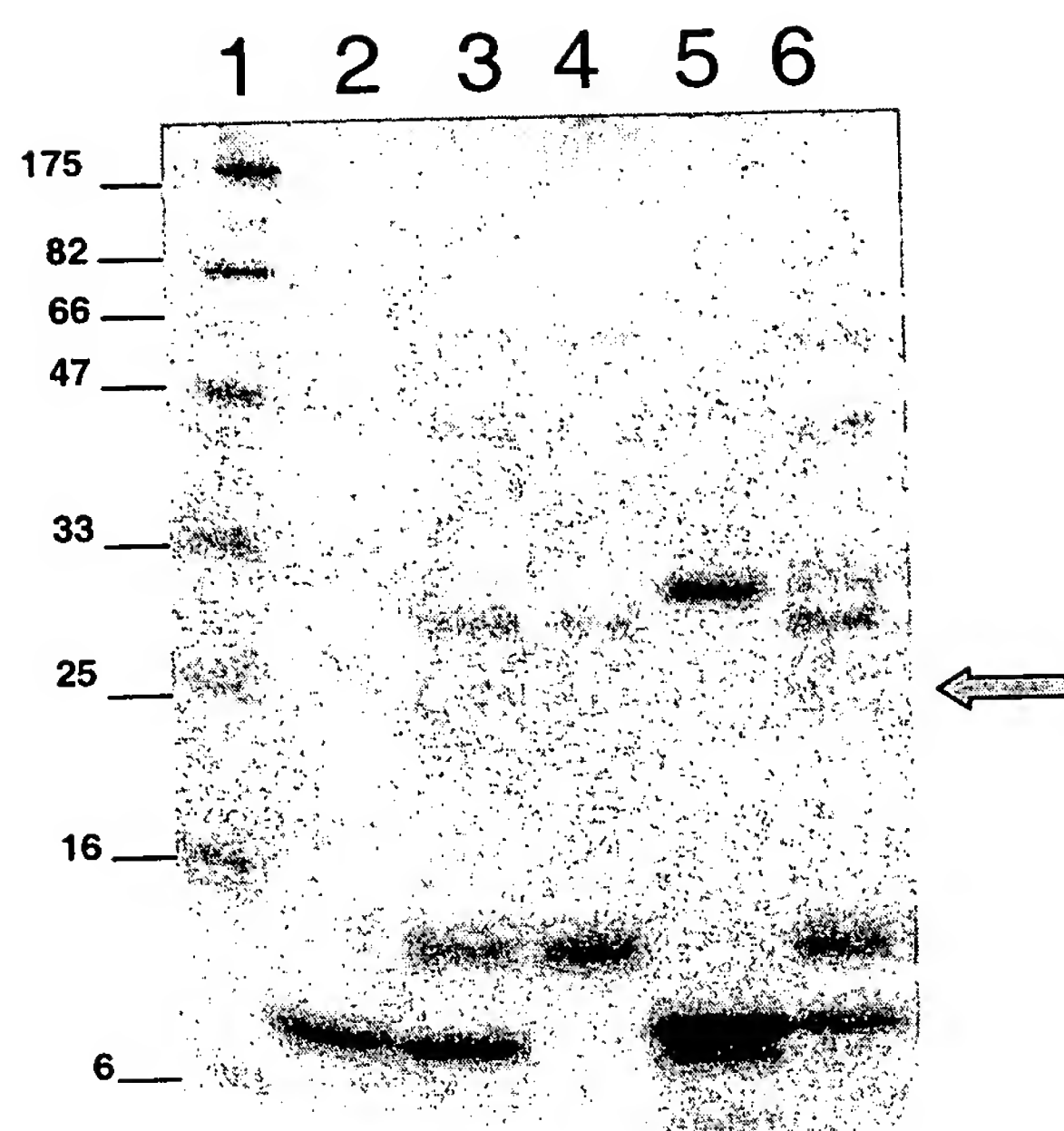
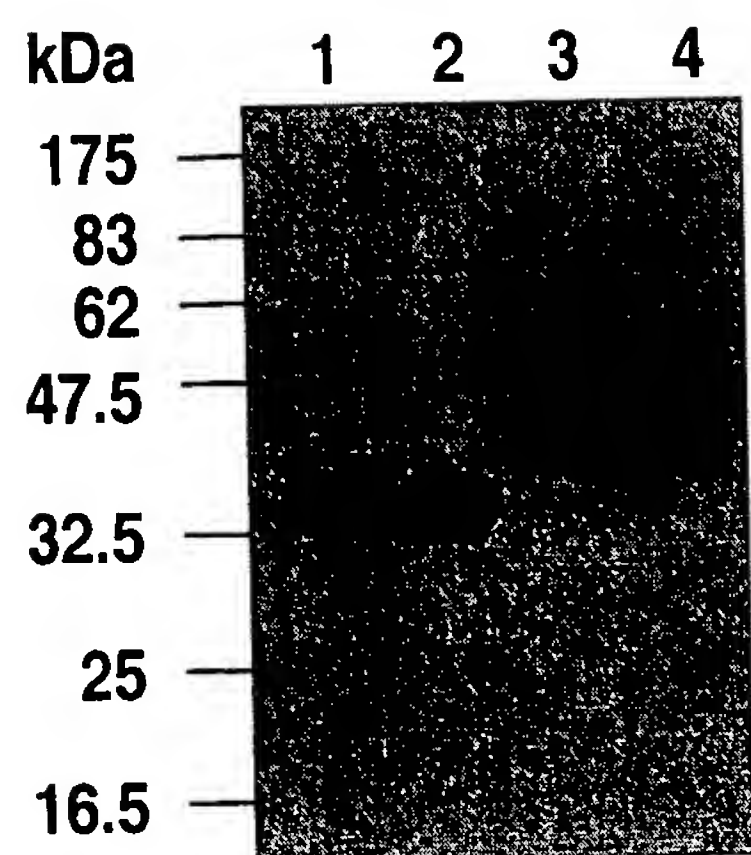


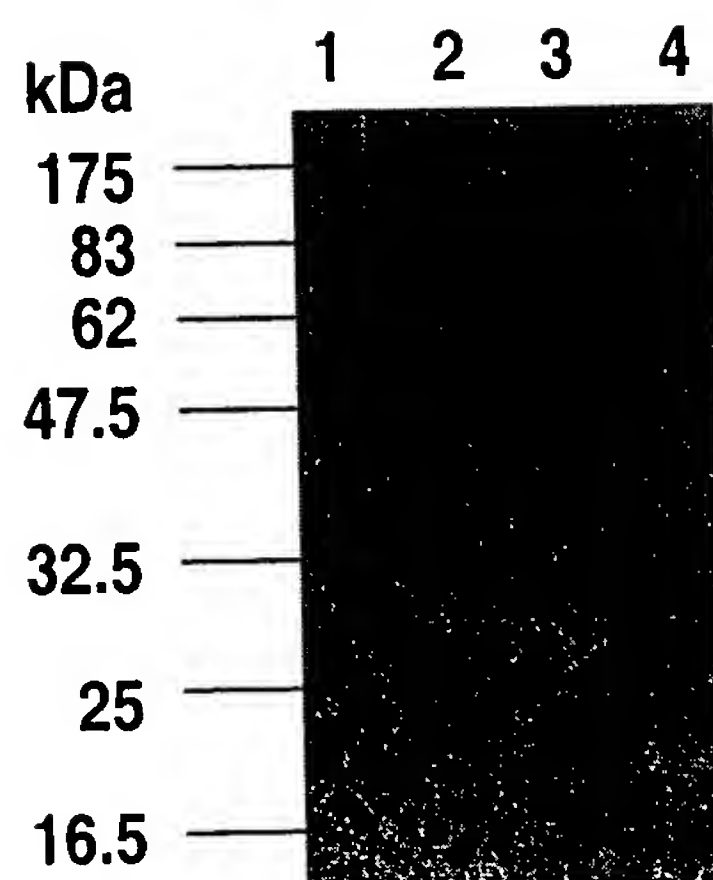
FIG. 2C

**A**



**FIG. 3A**

**B**



**FIG. 3B**

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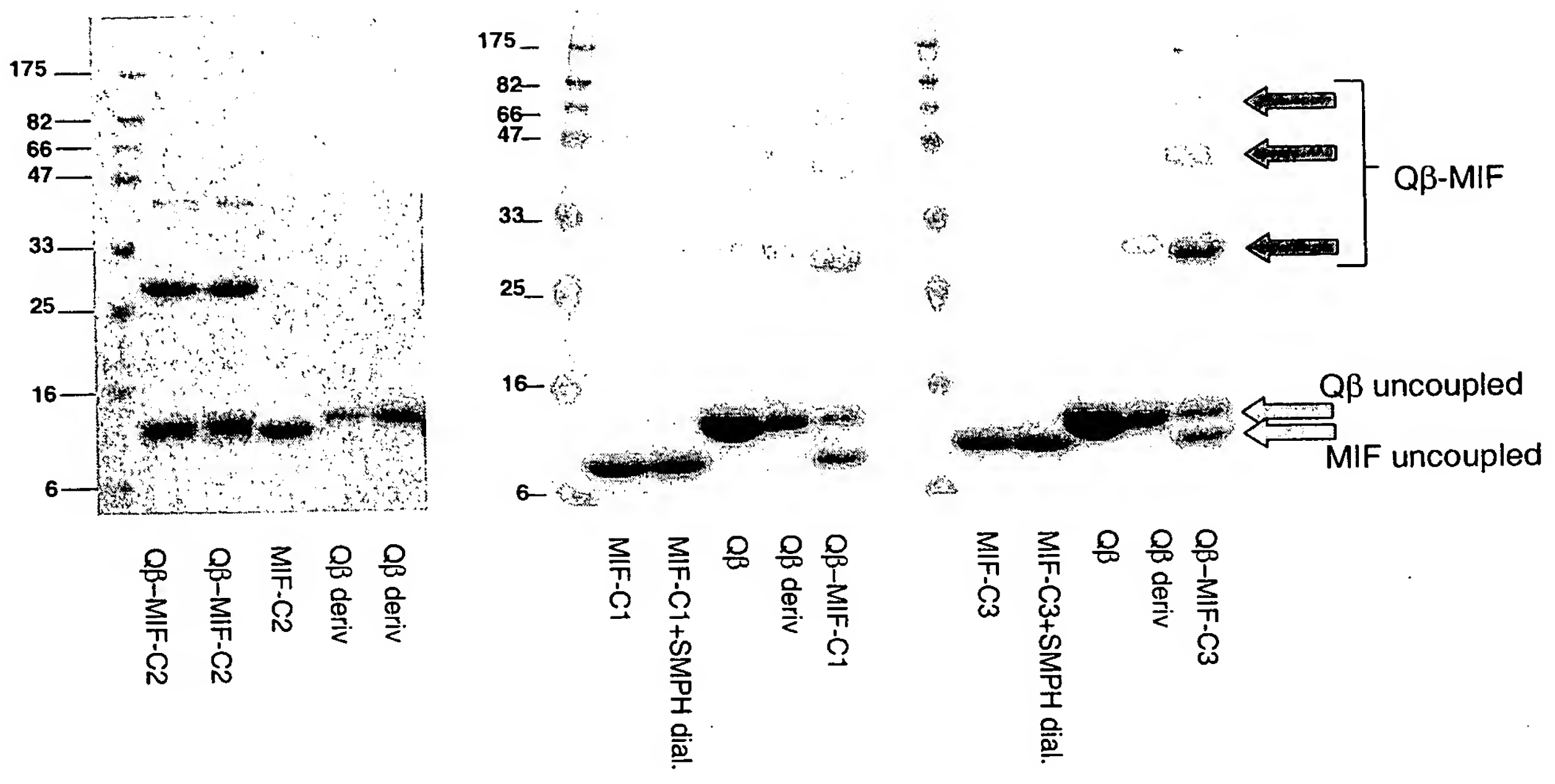
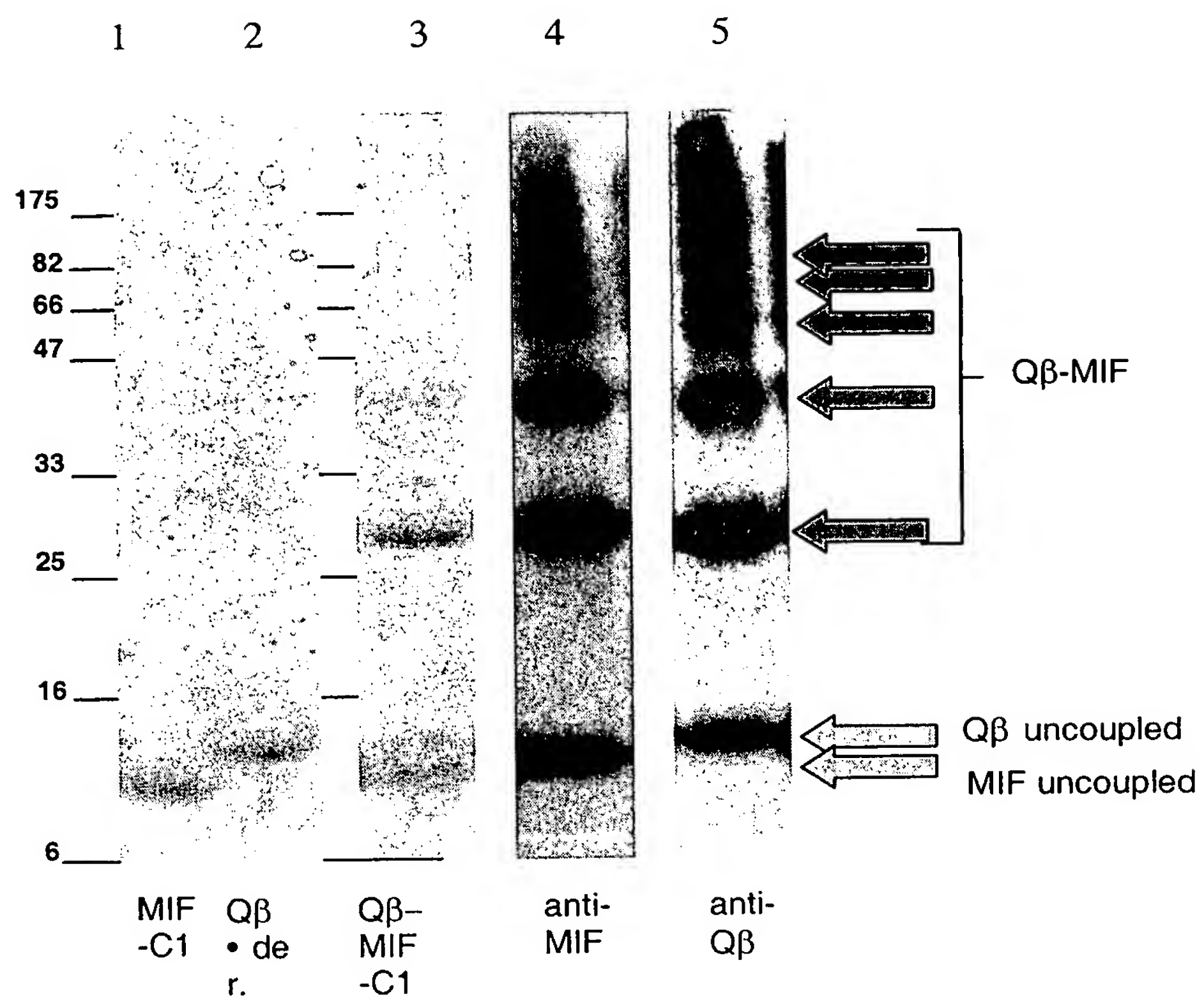


FIG. 4A



**FIG. 4B**

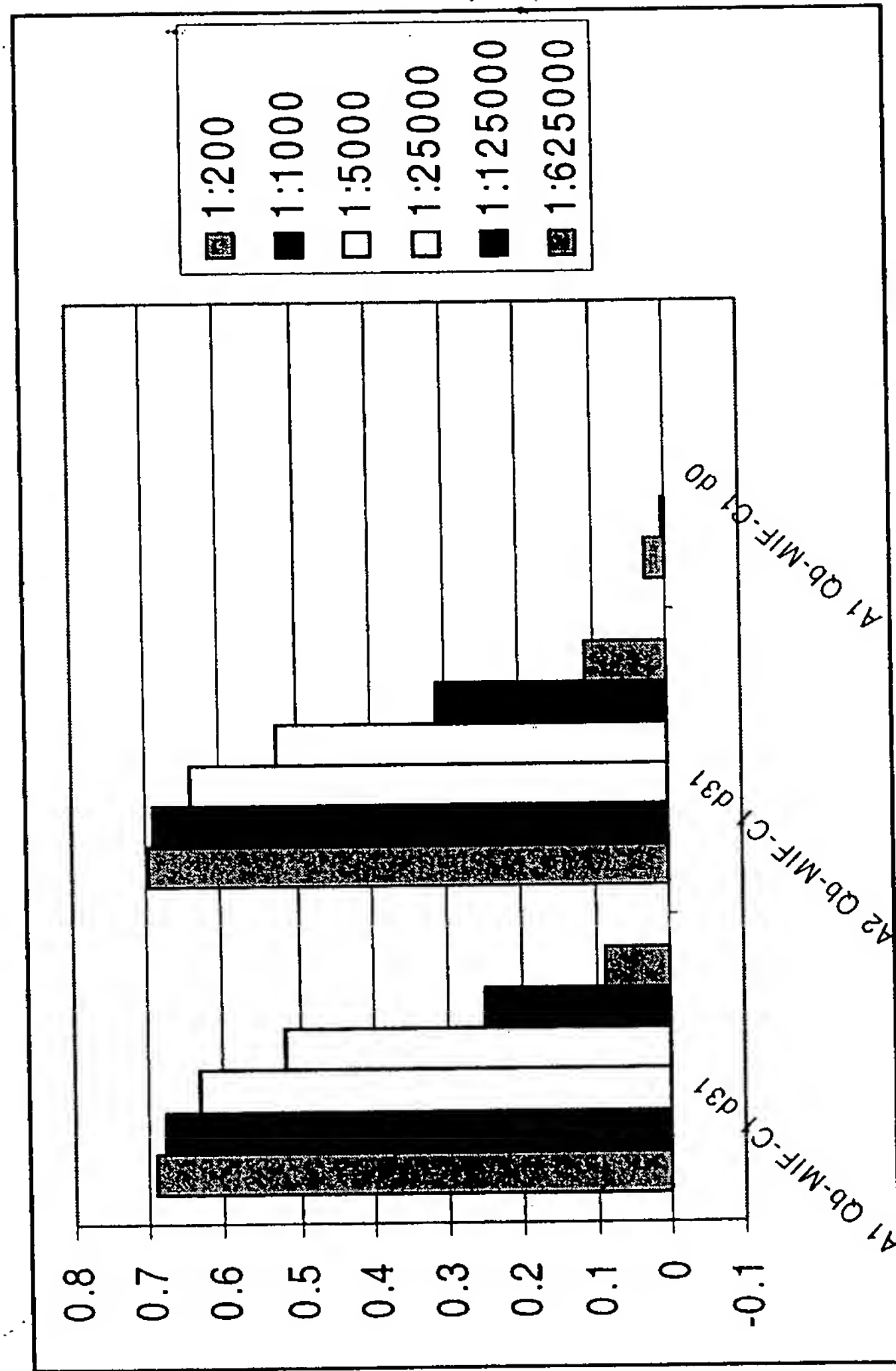


FIG. 4C



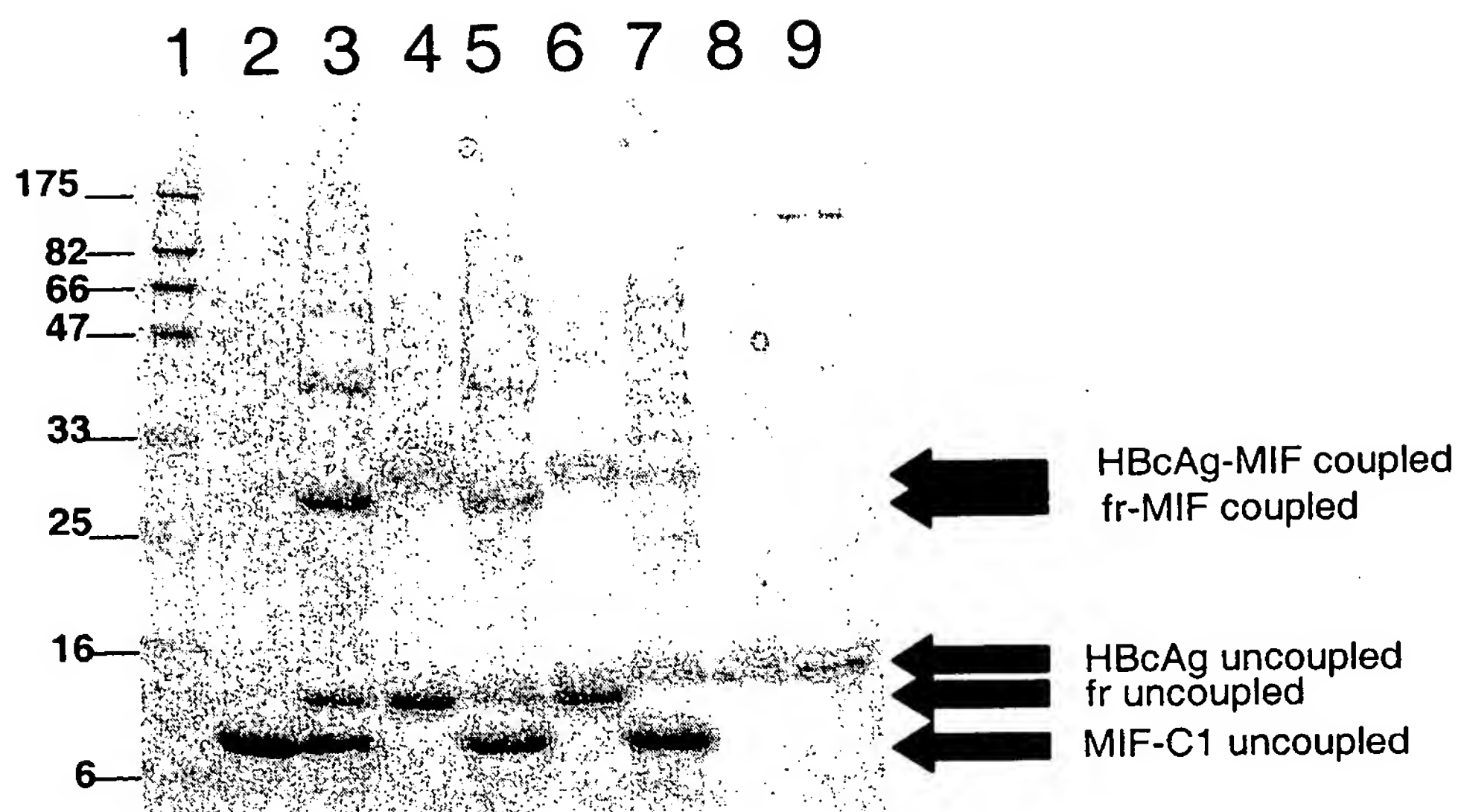
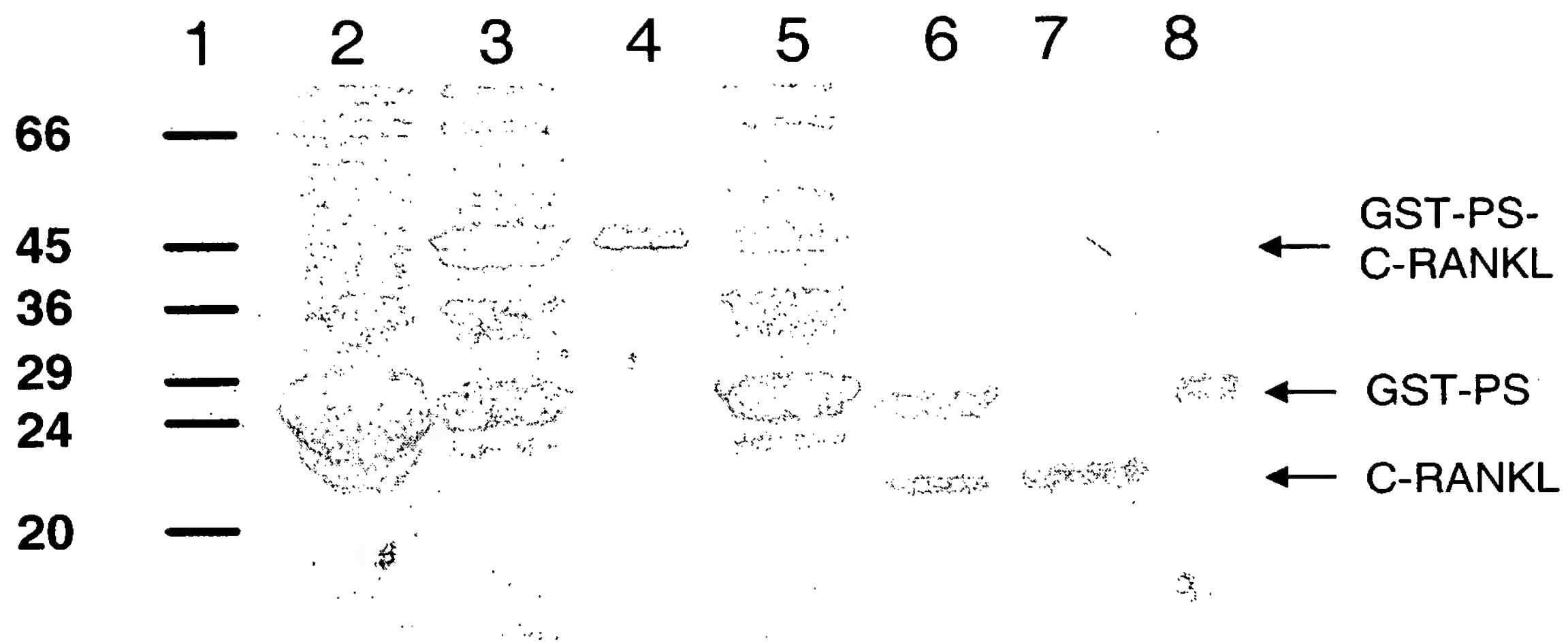
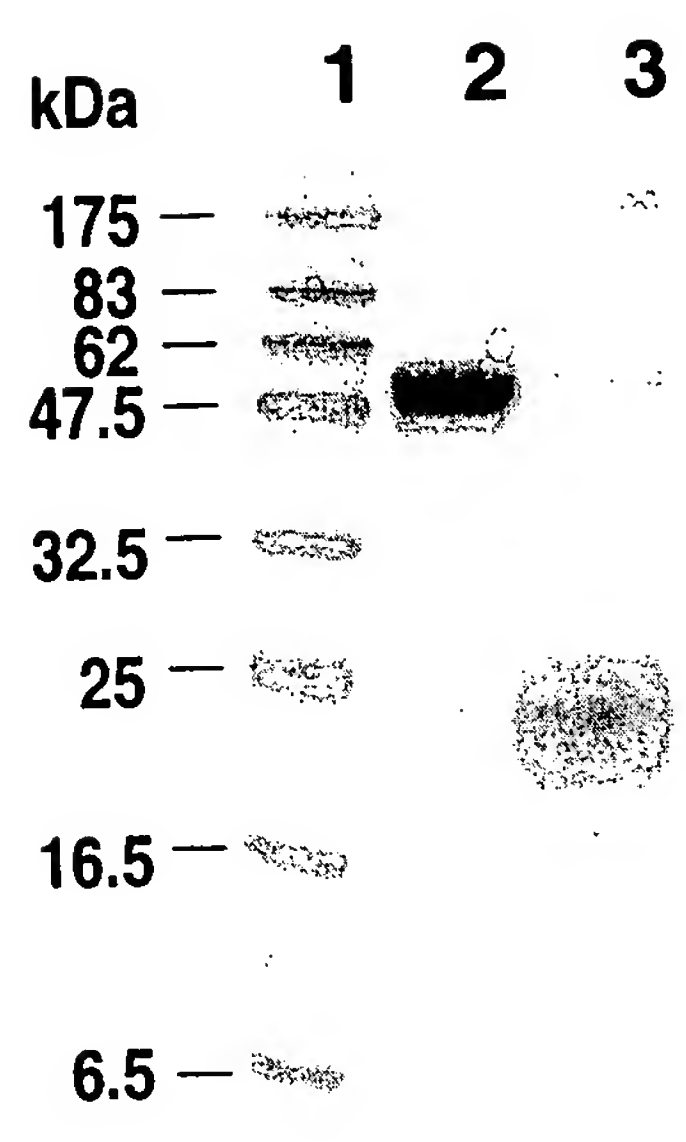
[illegible]

FIG. 5



**FIG. 6**

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**Fig 7**

FIG. 8A

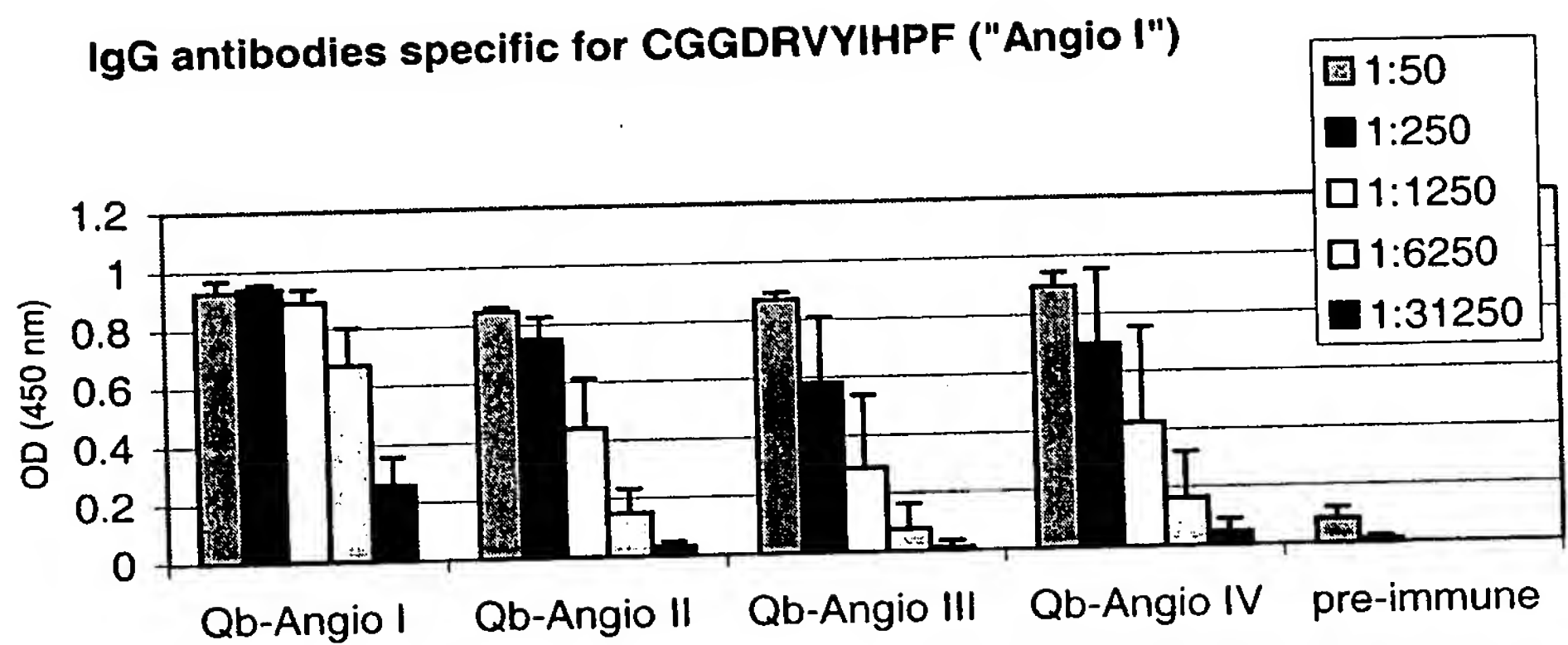


FIG. 8B

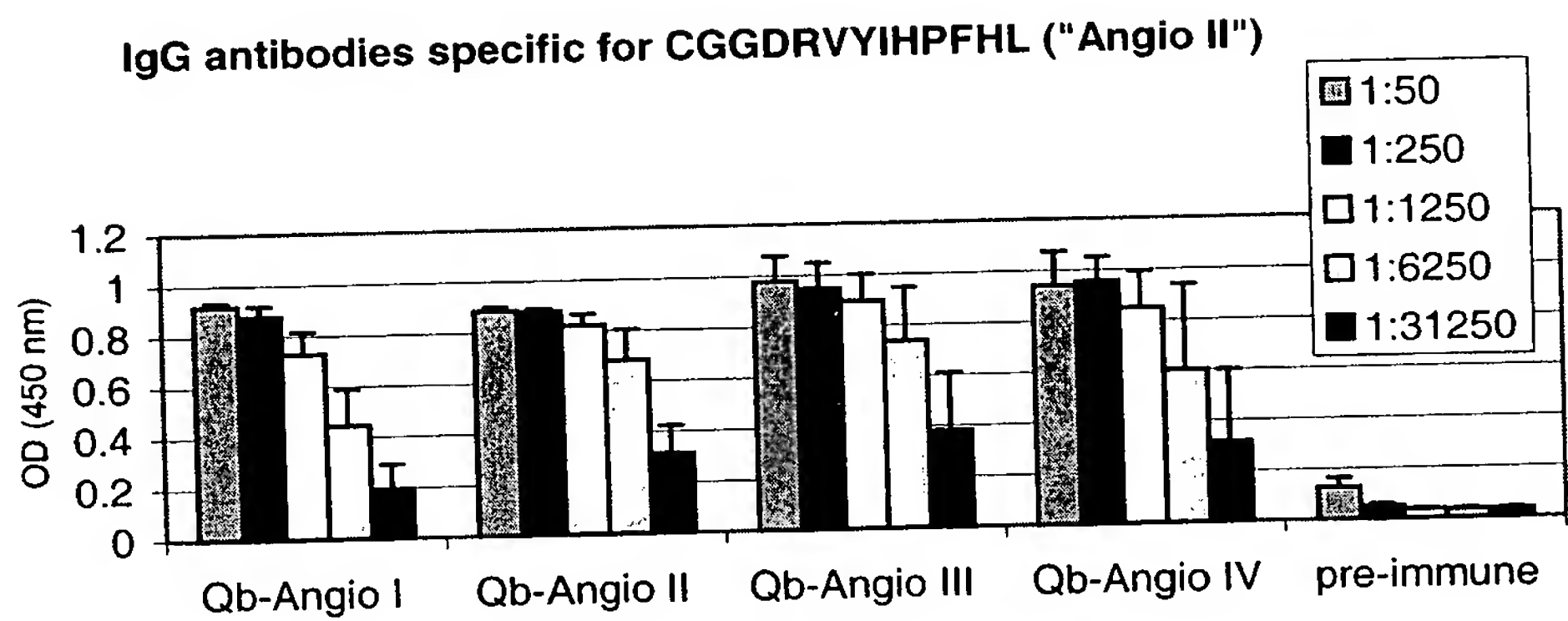


FIG. 8C

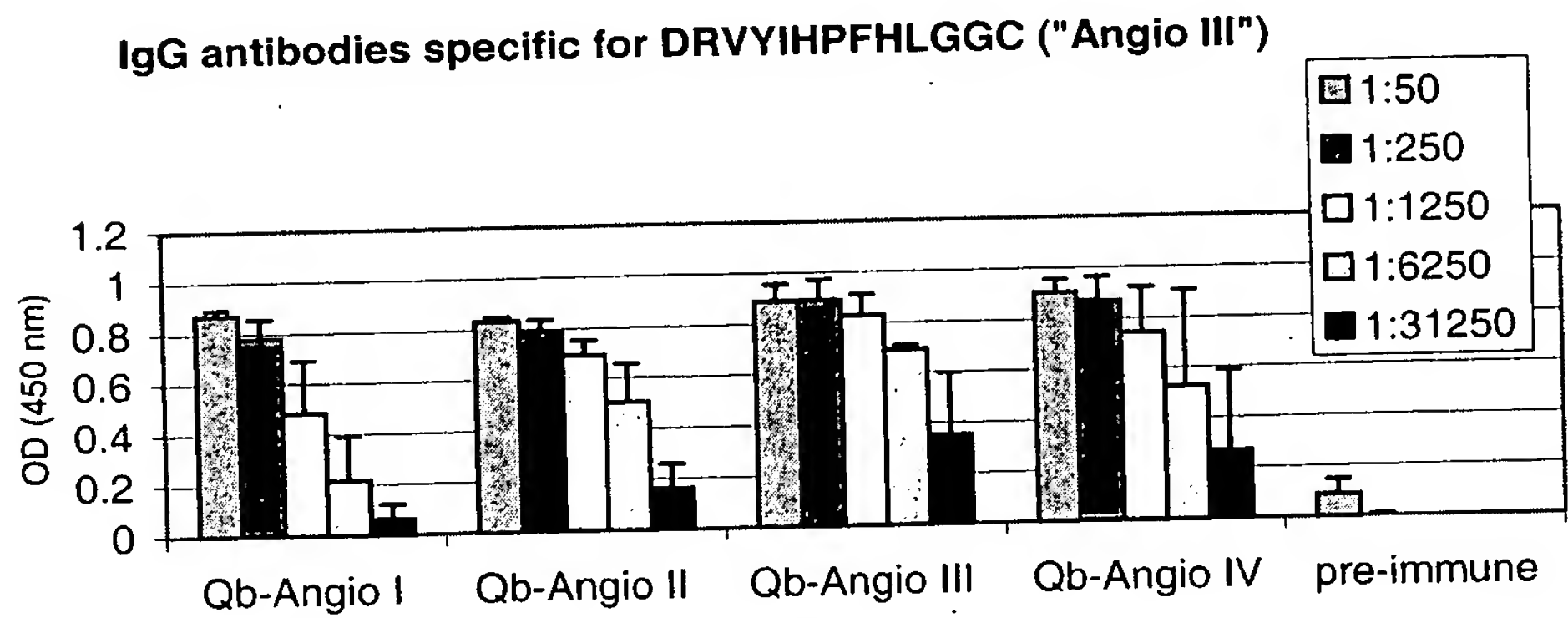


FIG. 8D

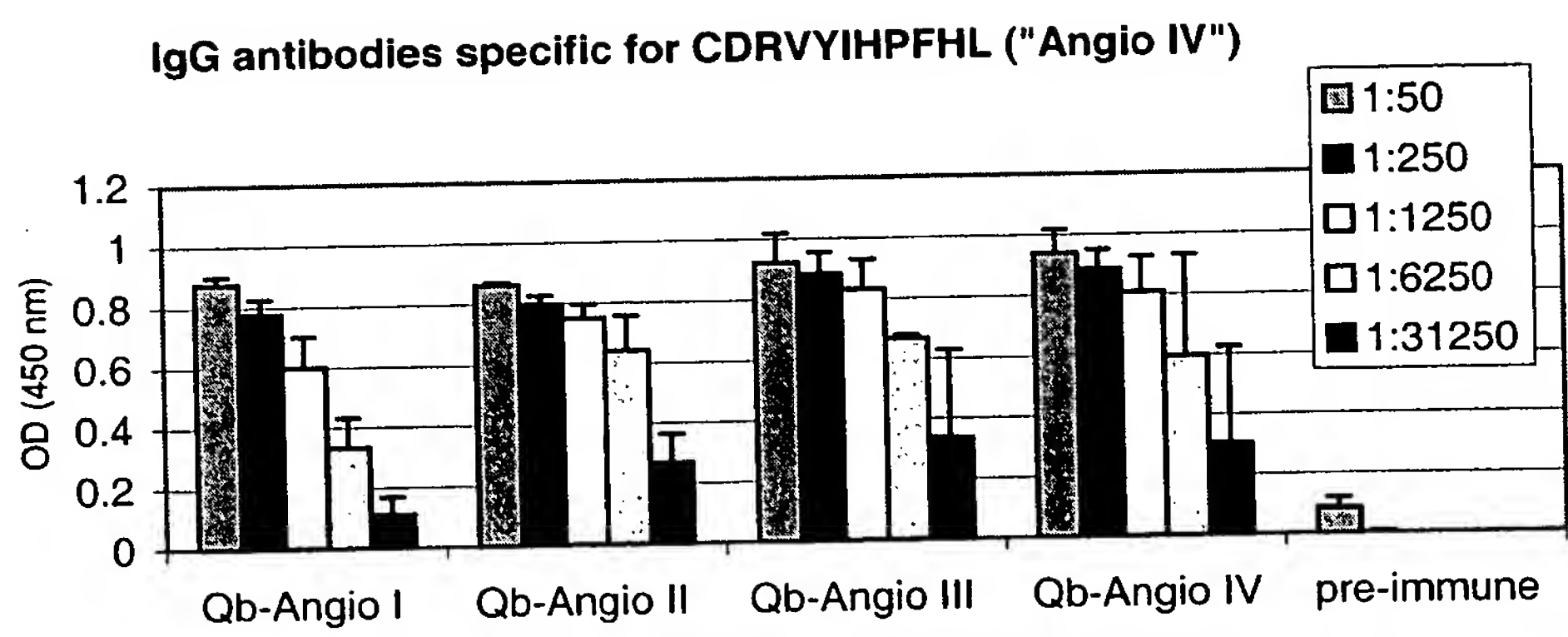


FIG. 9A

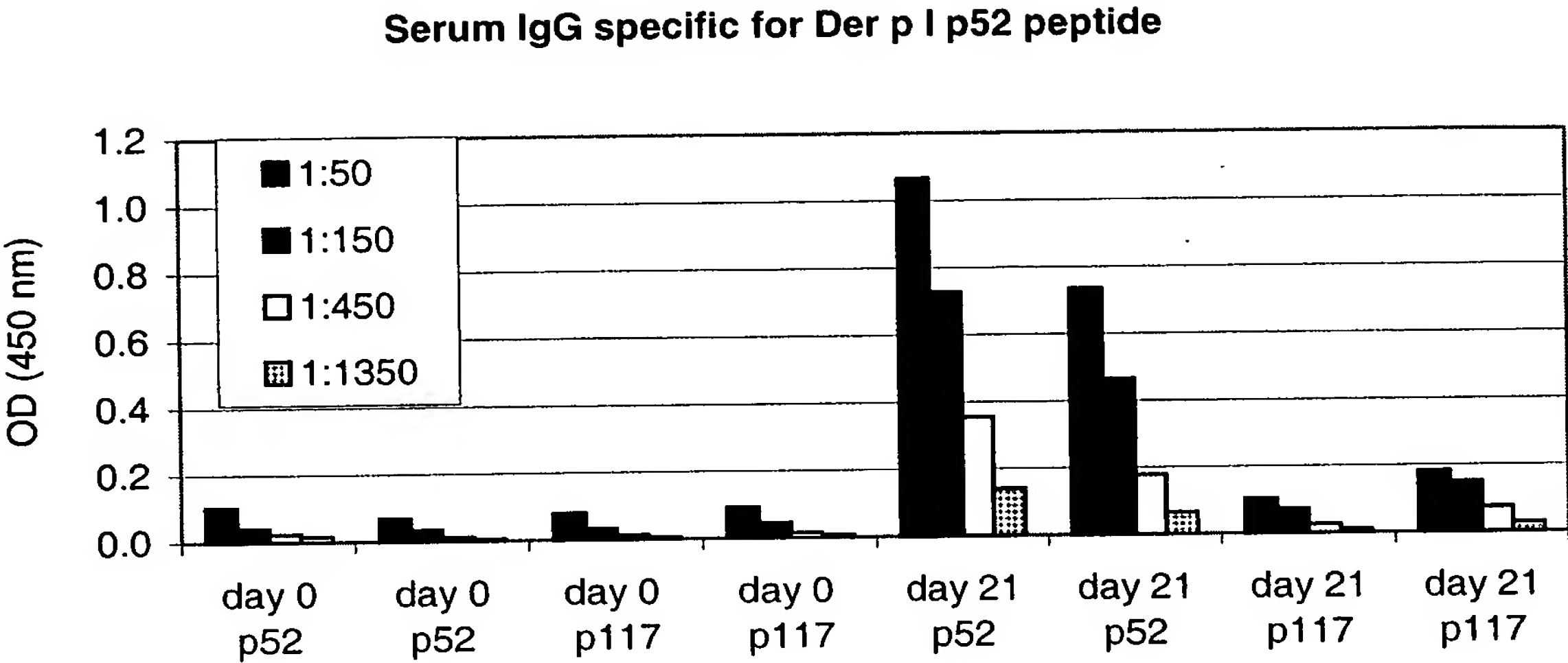


FIG. 9B

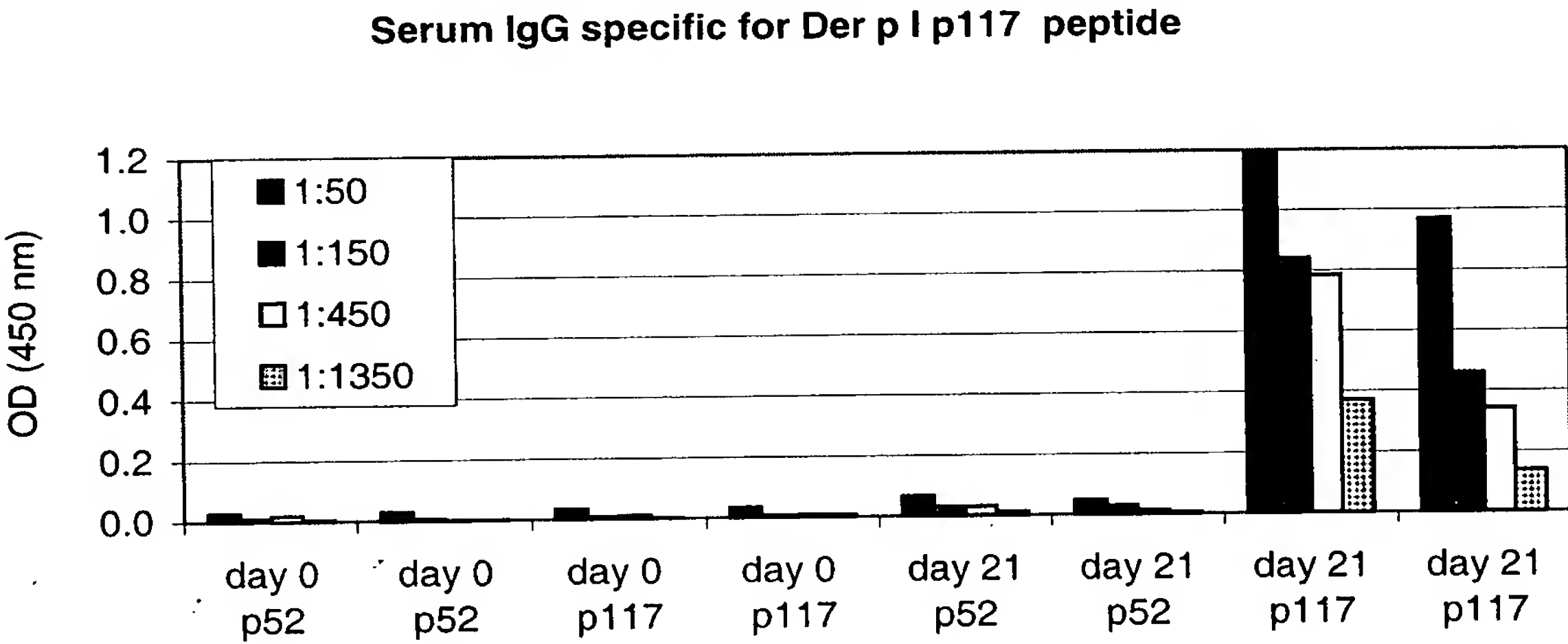


FIG. 10A

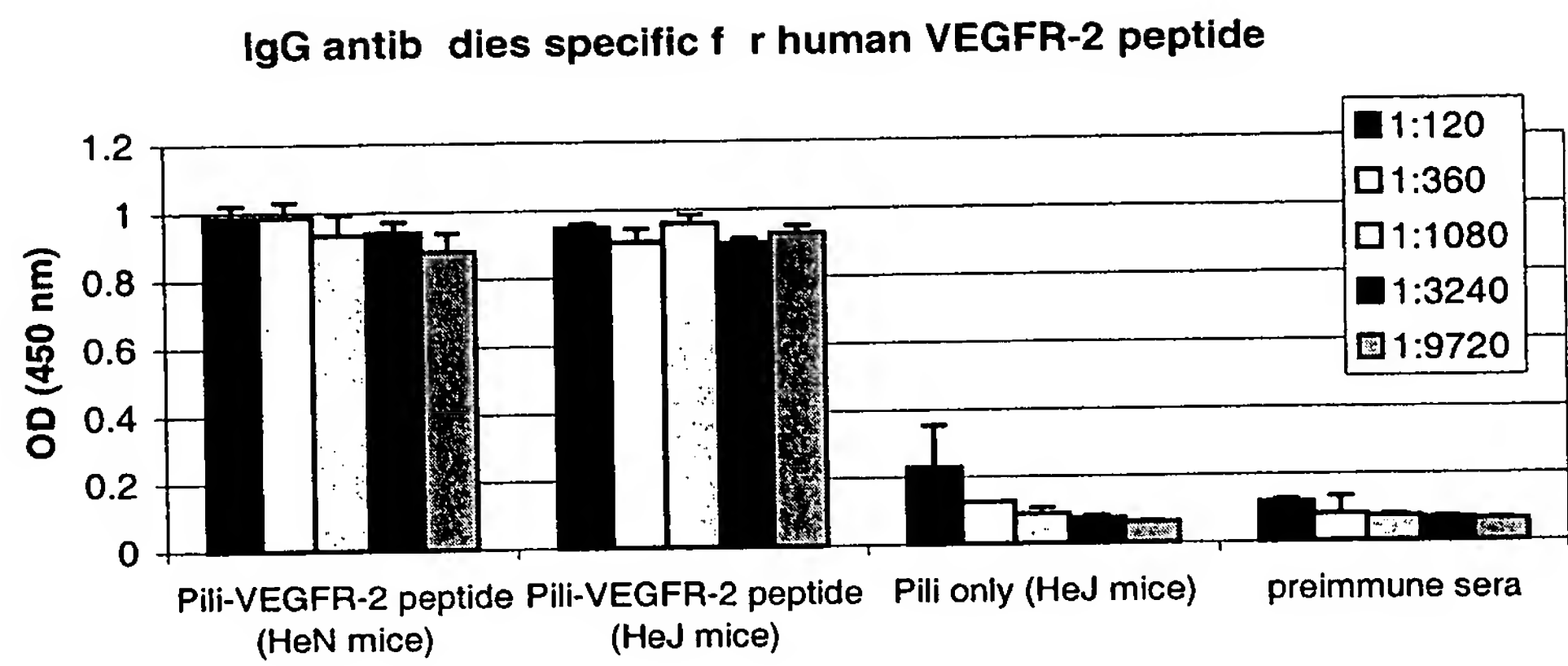


FIG. 10B

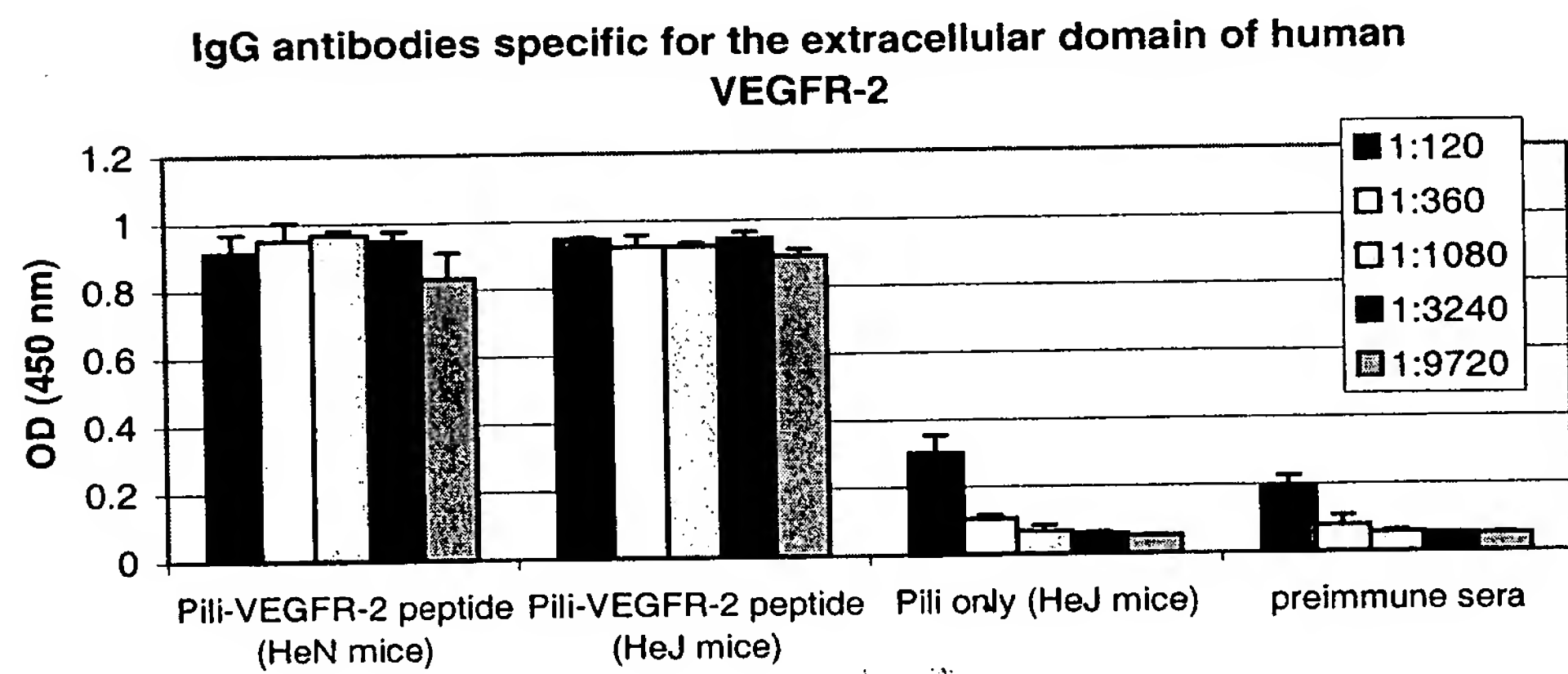


FIG. 11

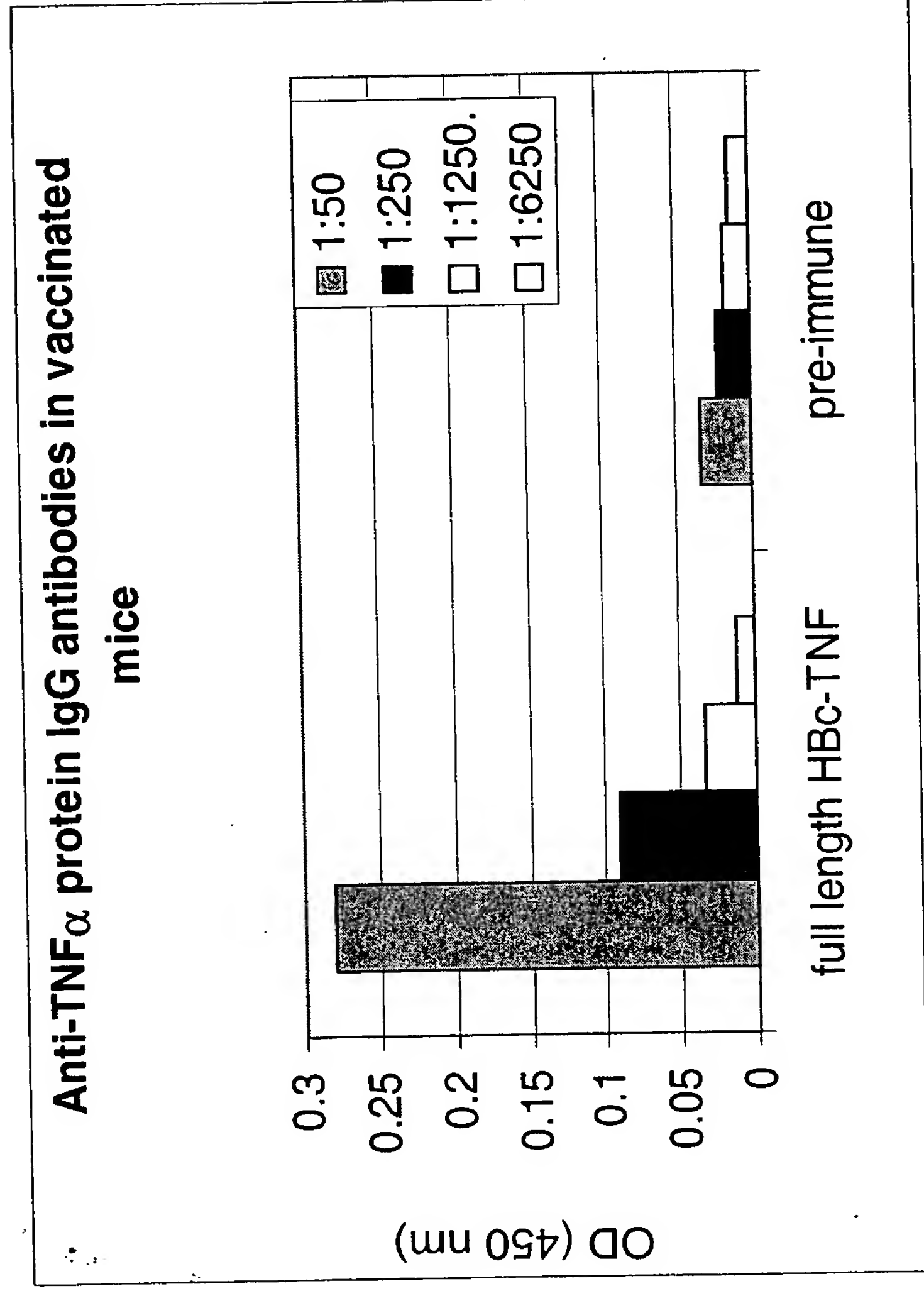




FIG. 12

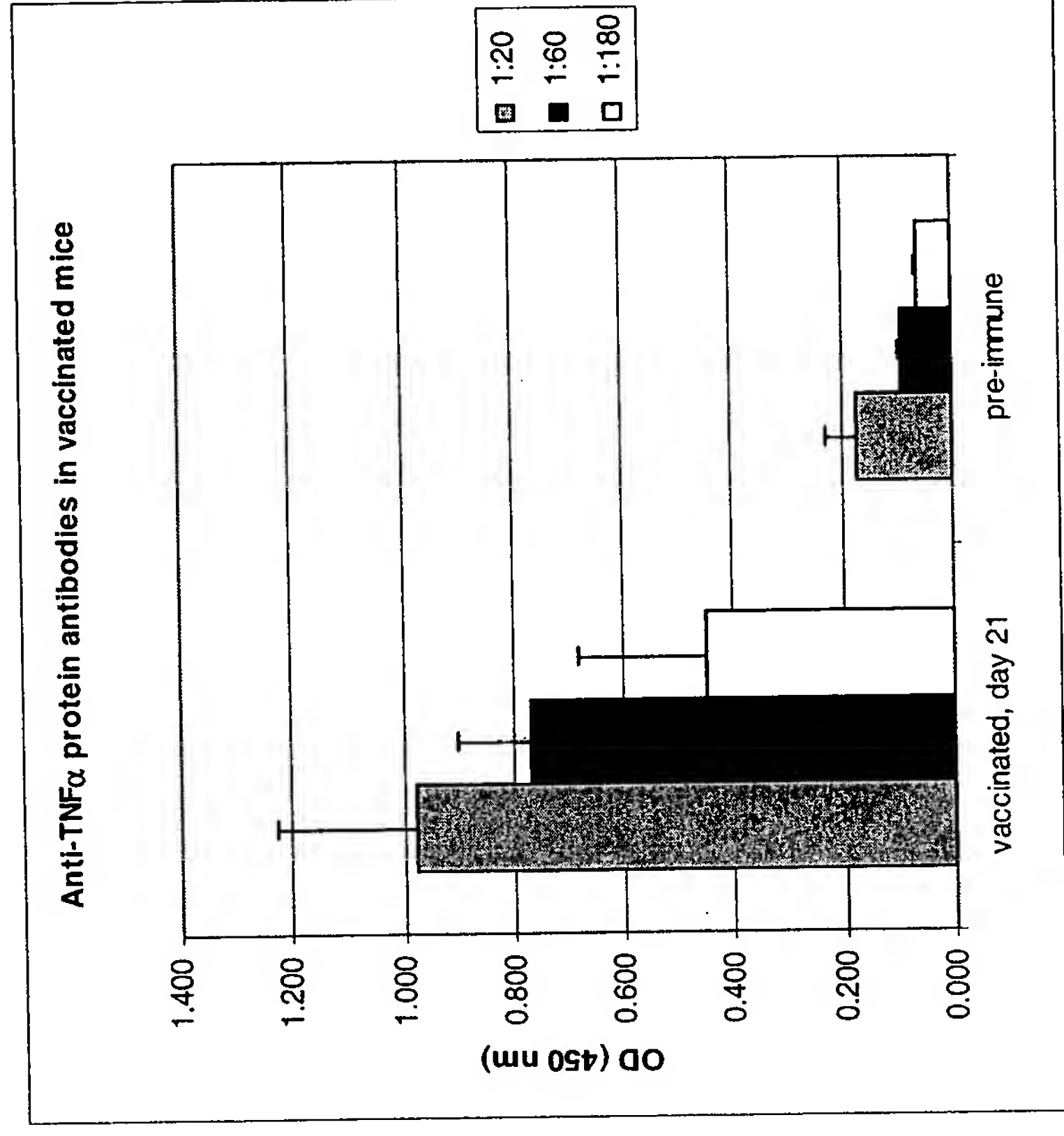
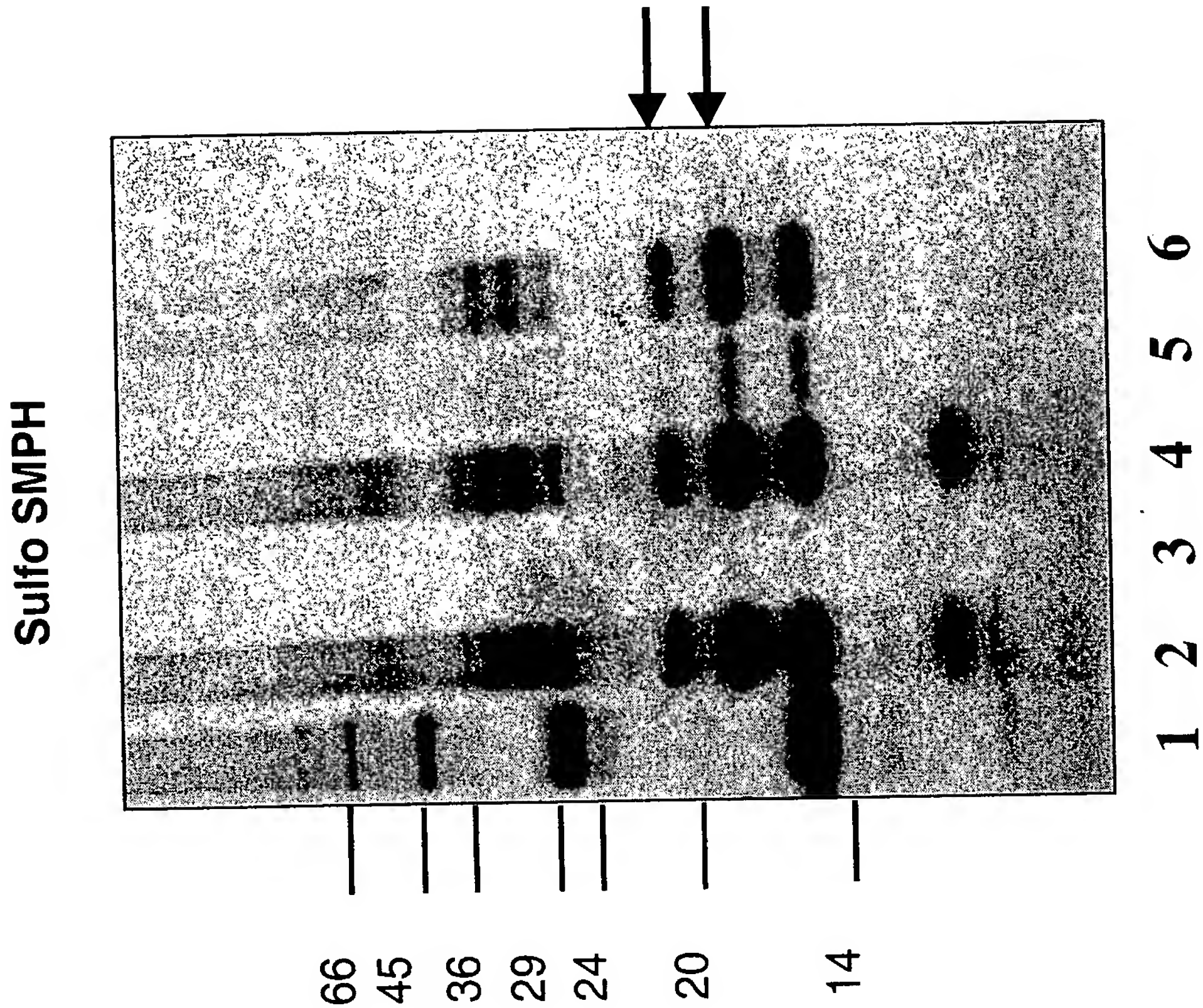
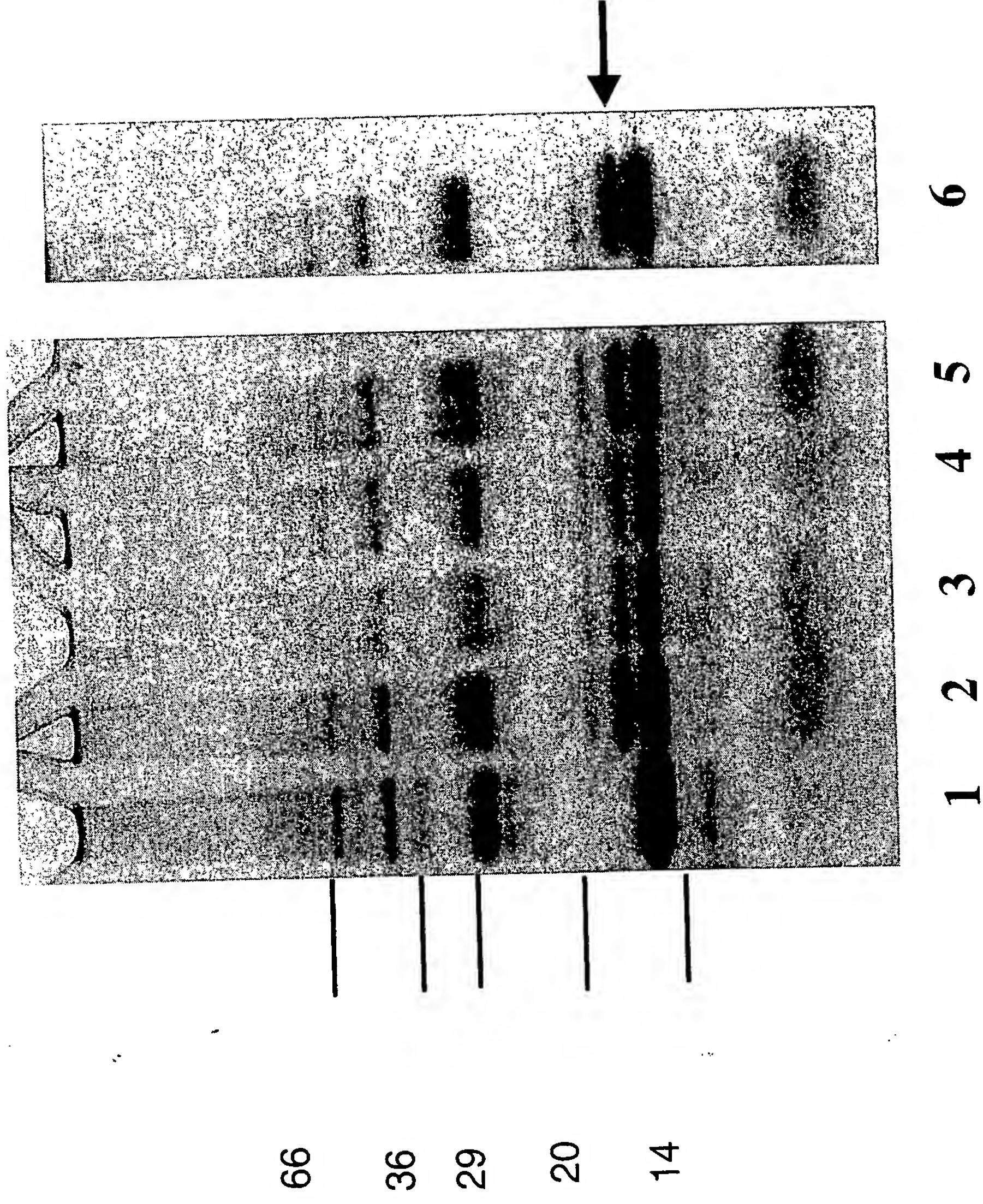


FIG. 13A



Sulfo SMPH

FIG. 13B





**FIG. 13C**

**Sulfo SMPH**

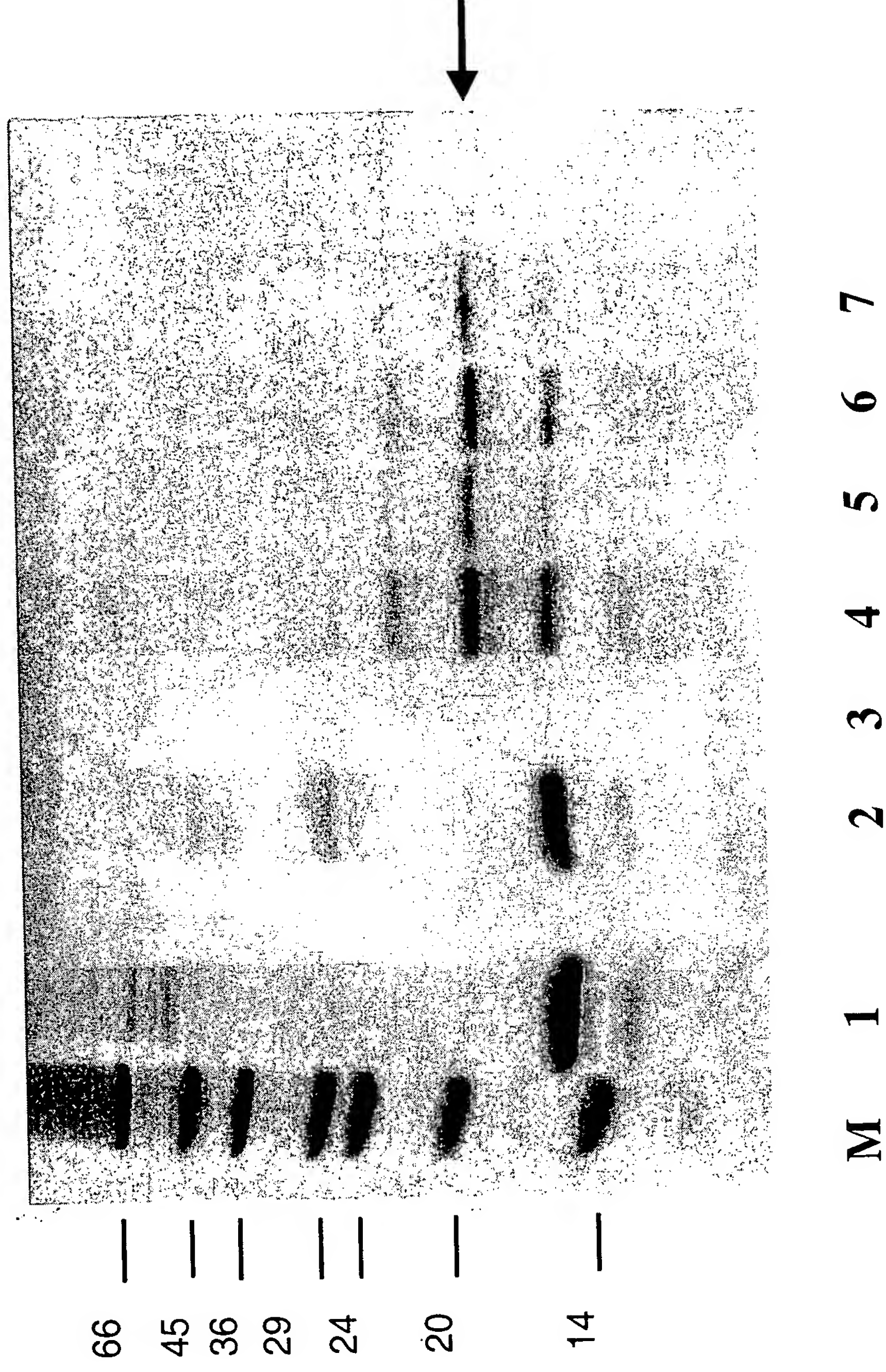


FIG. 13D

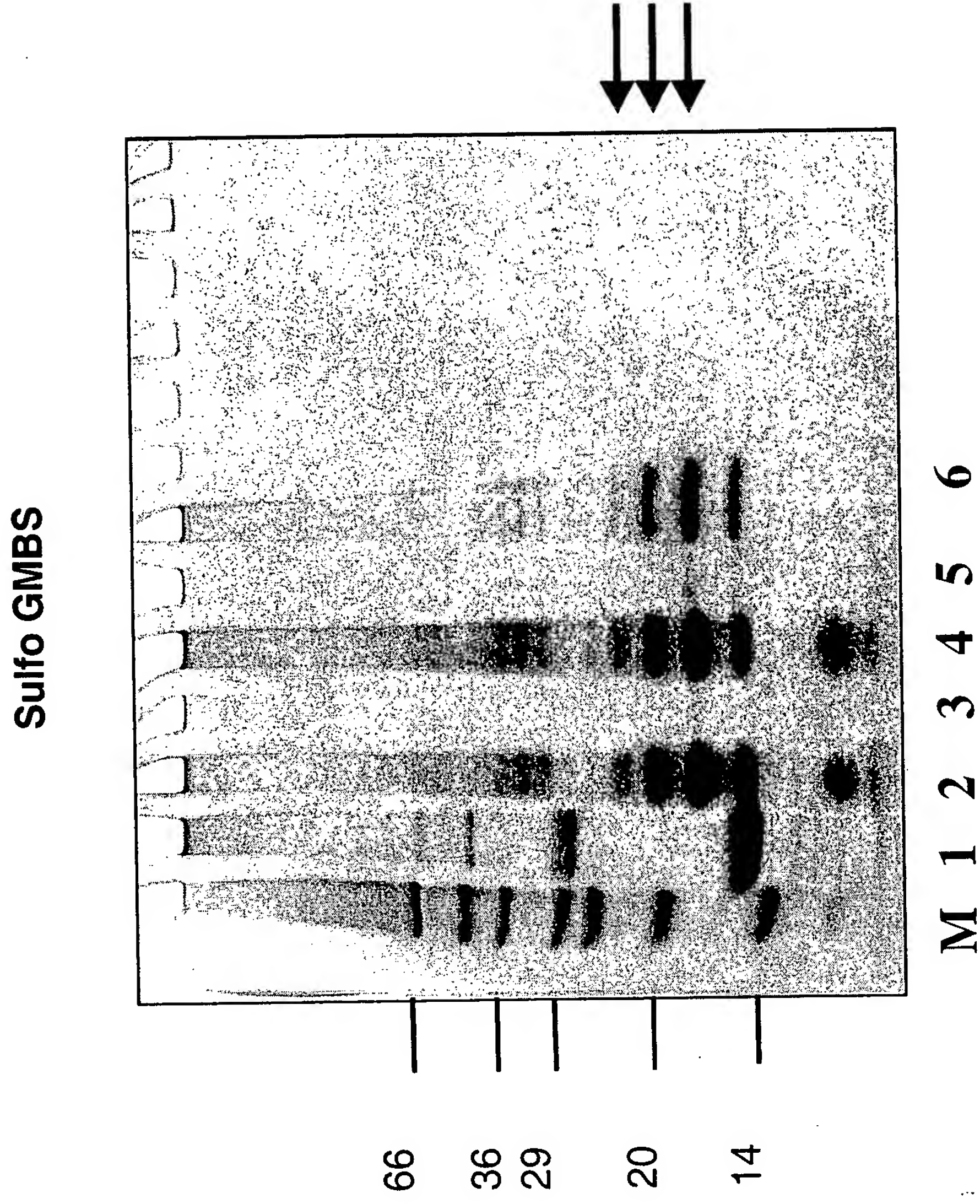




FIG. 13E

Sulfo MBS

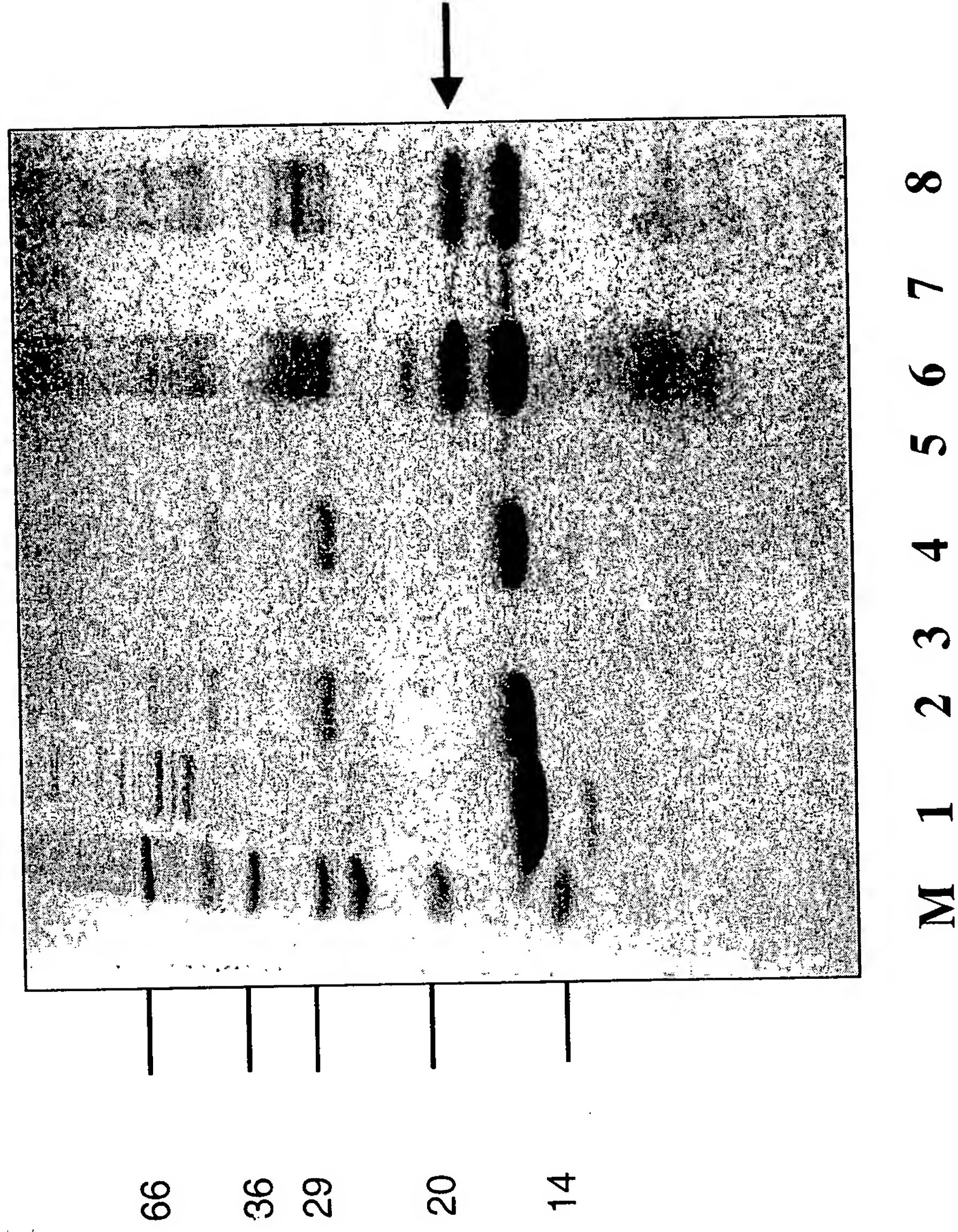


FIG. 14A

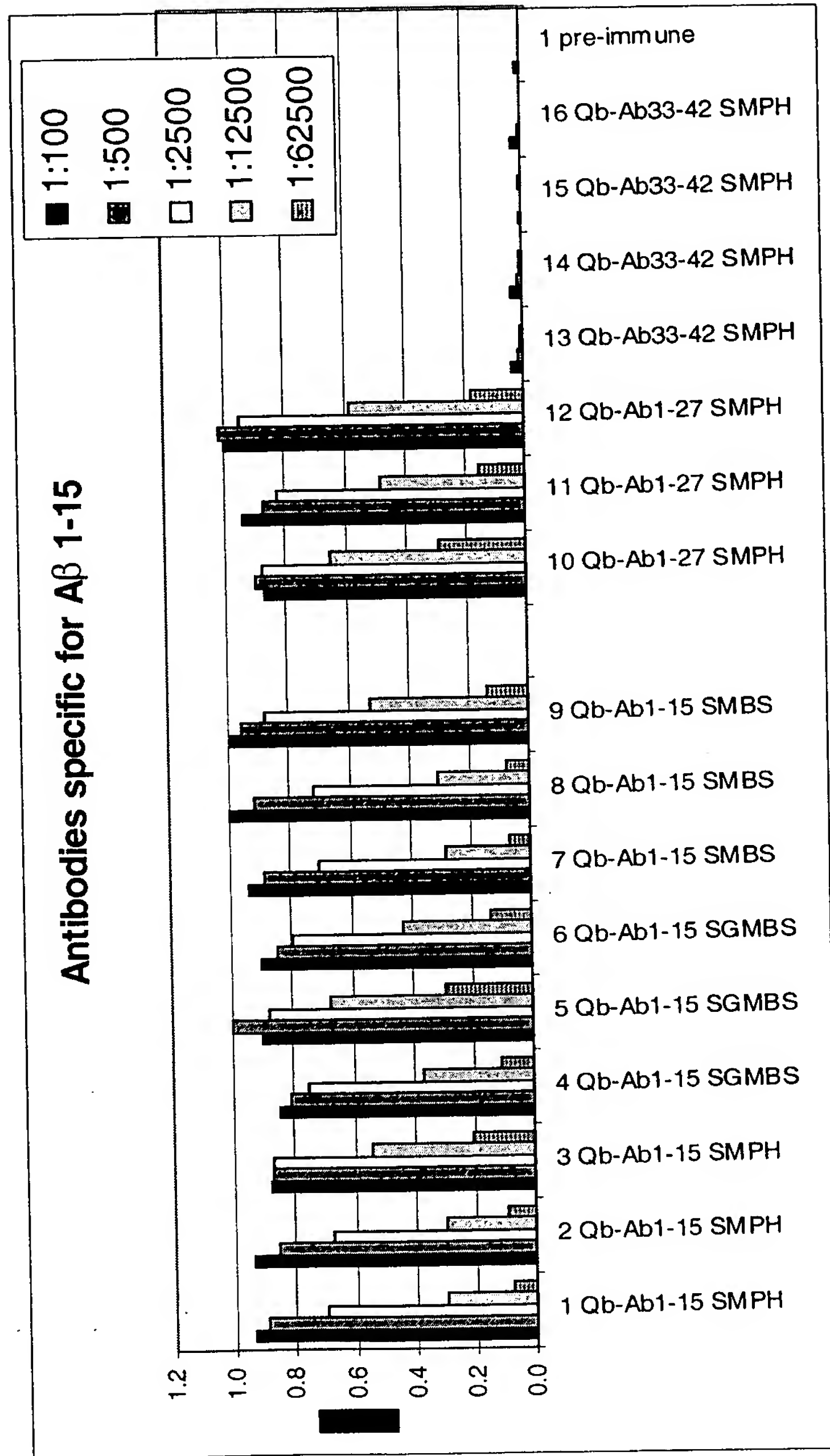


FIG. 14B

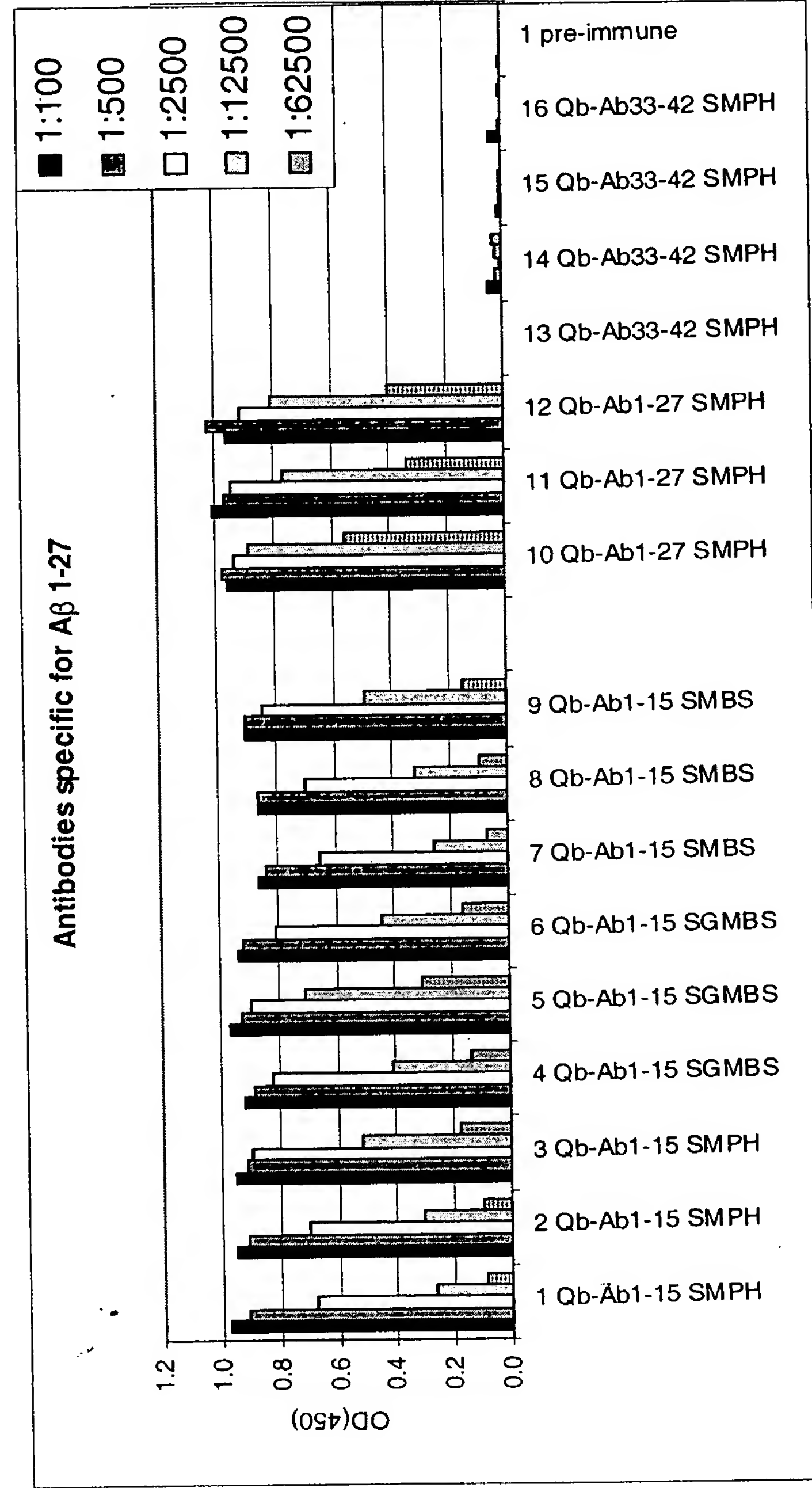




FIG. 14C

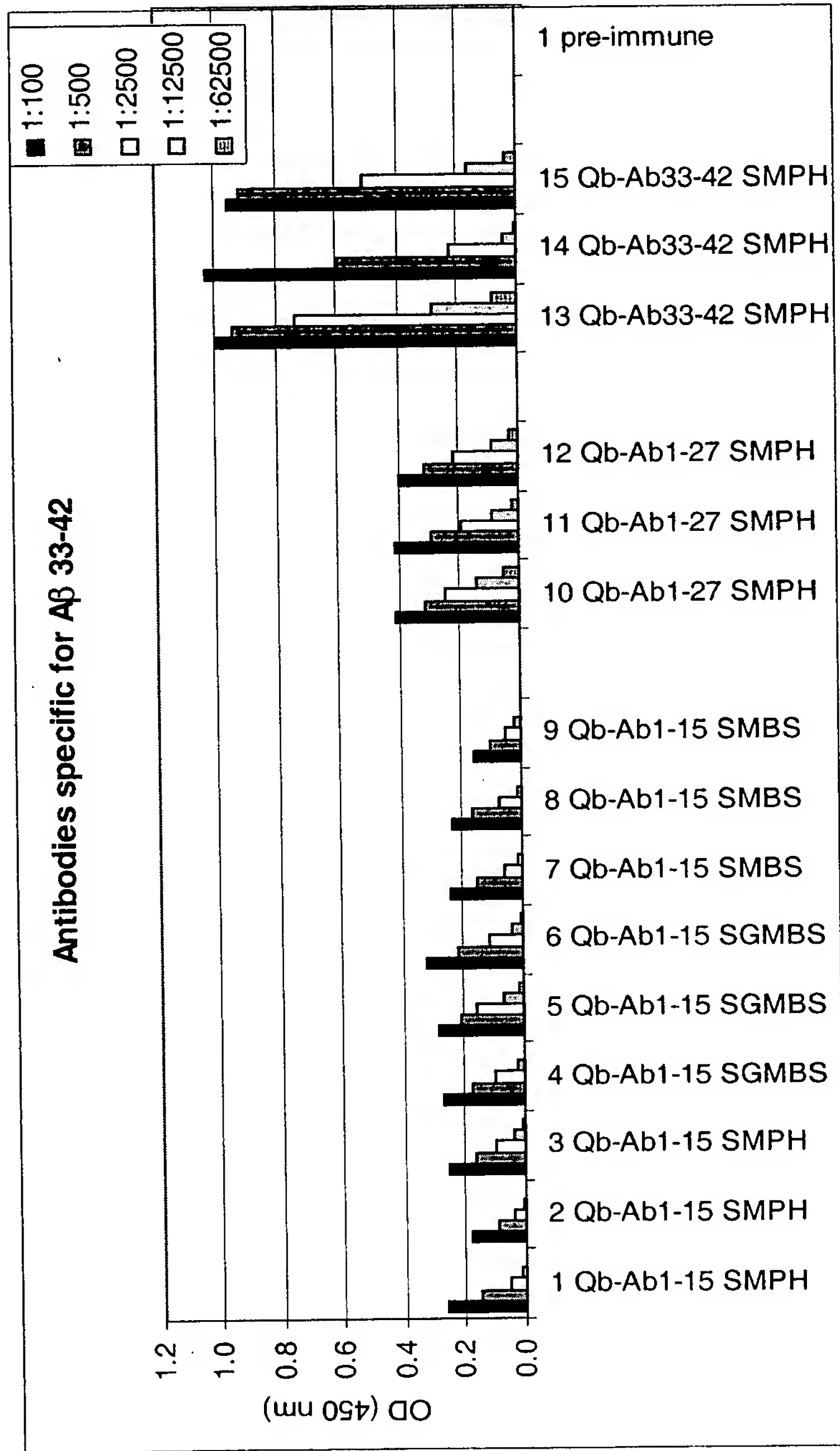


FIG. 15A

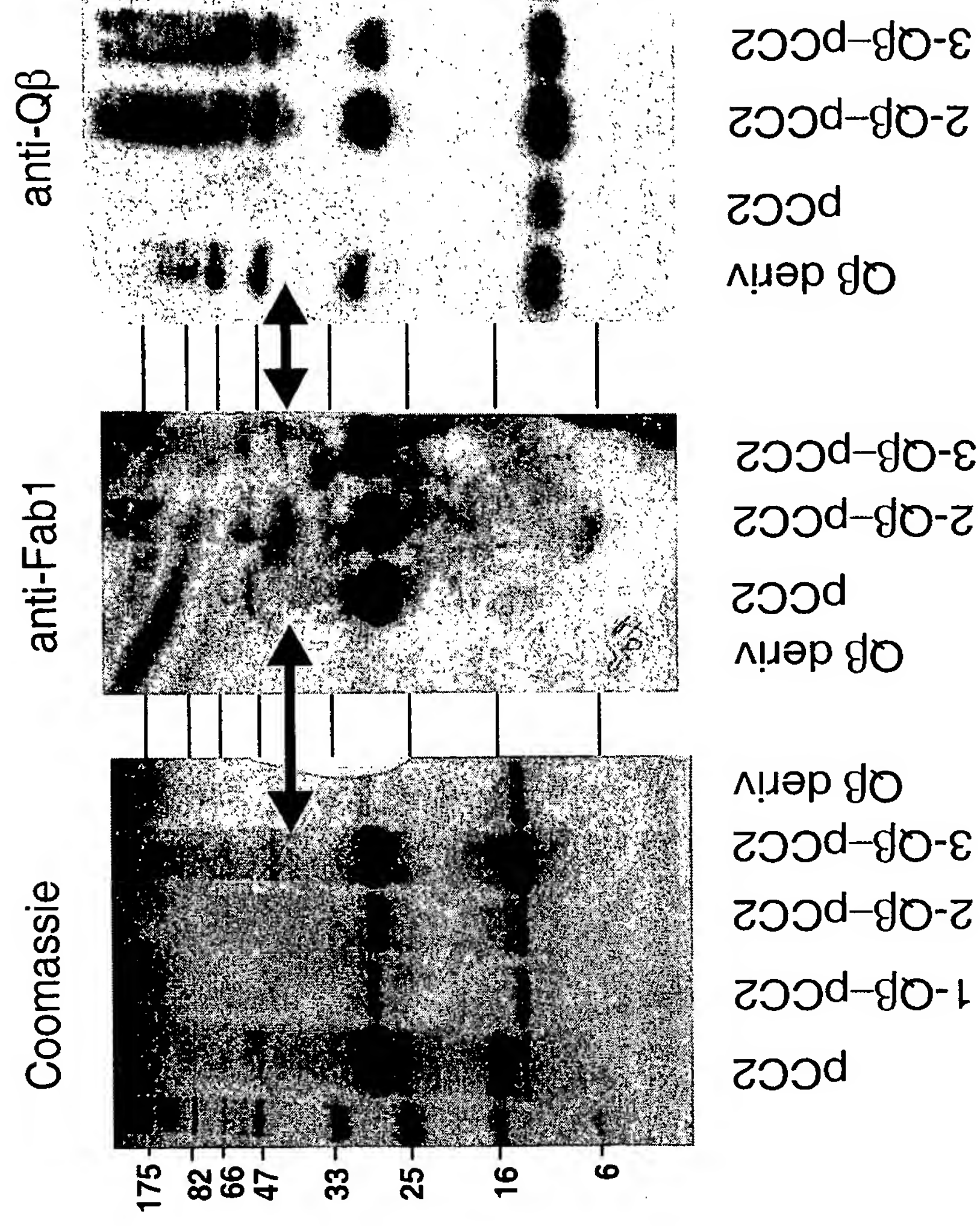


FIG. 15B

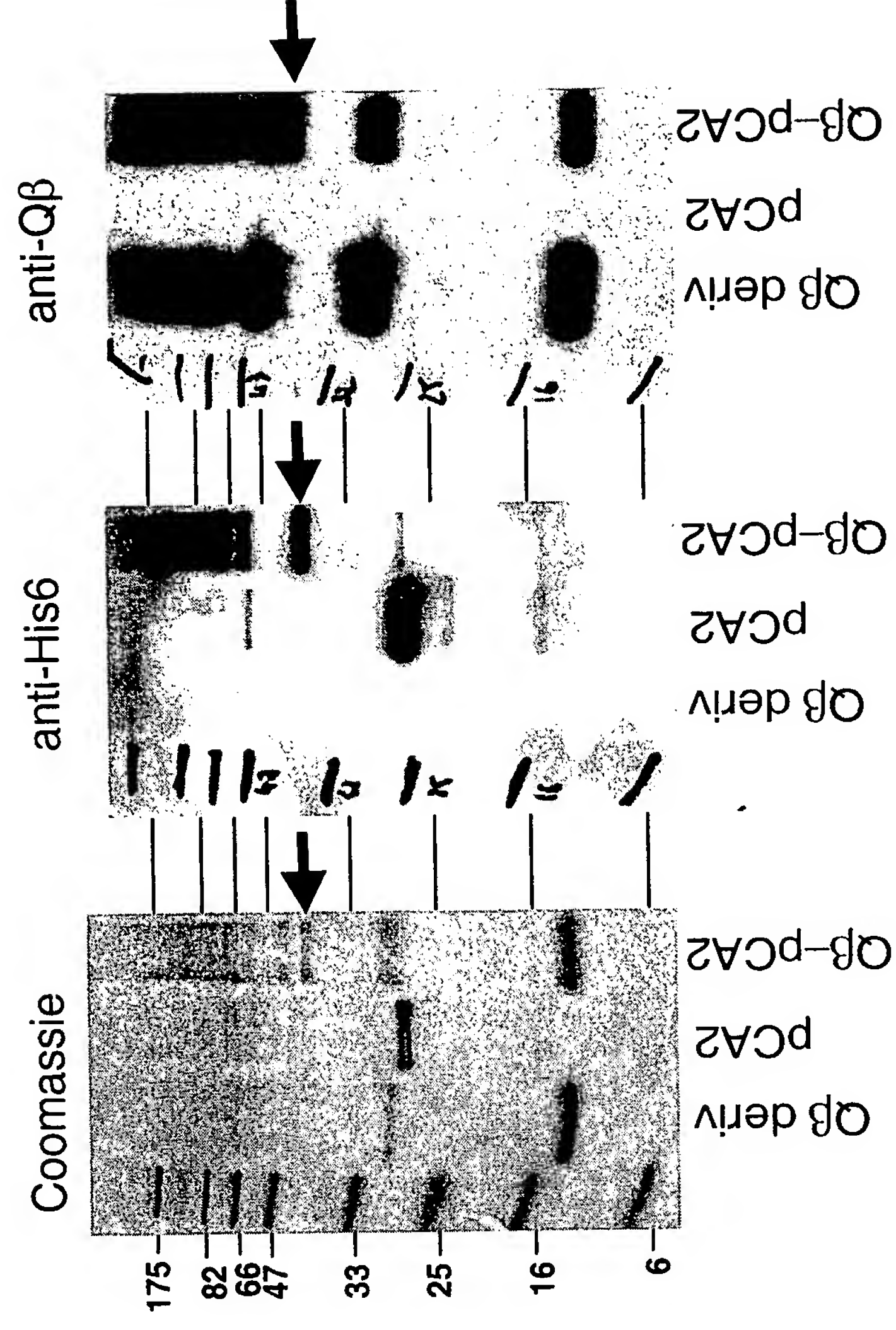
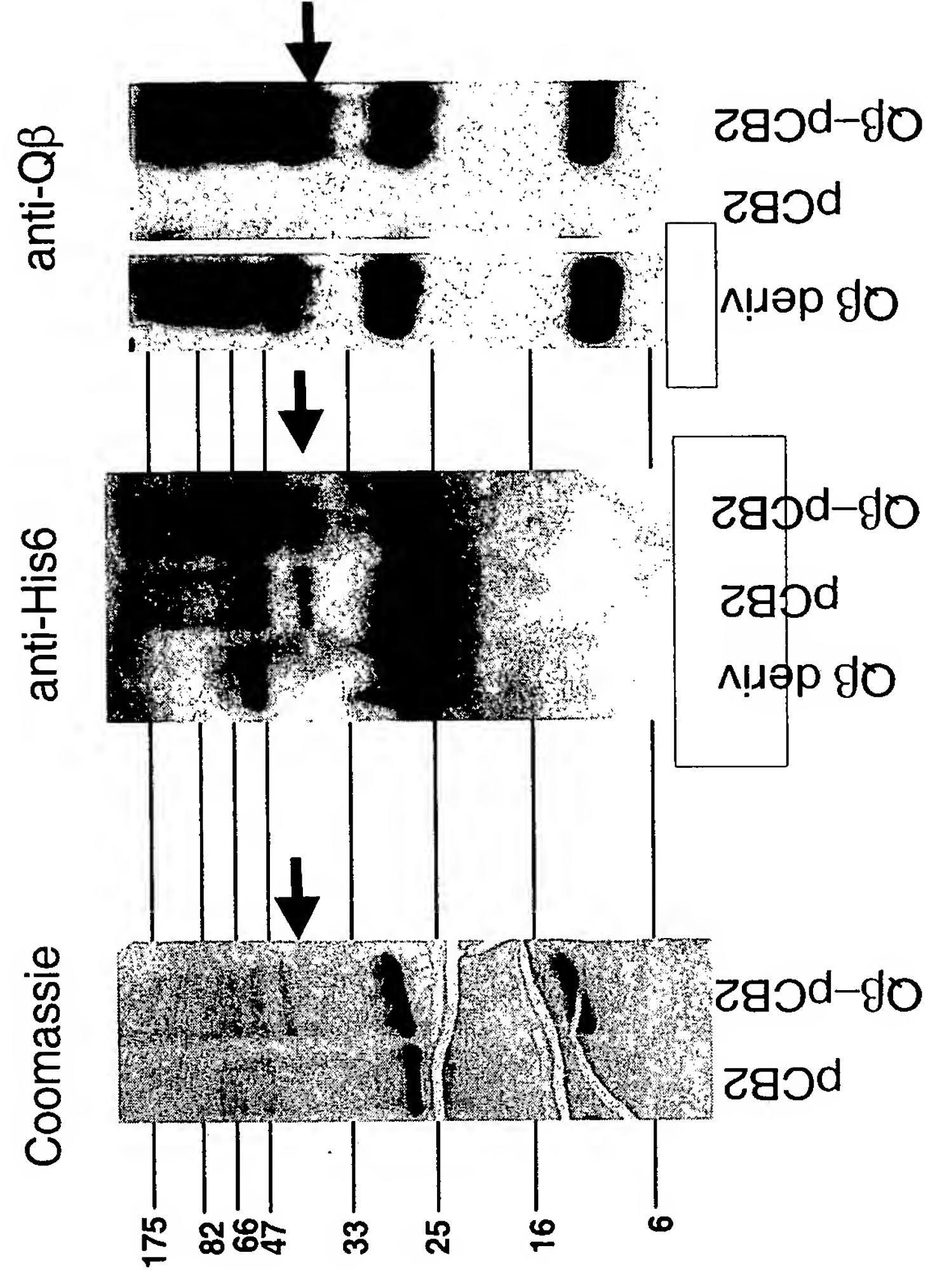


FIG. 15C



**A**

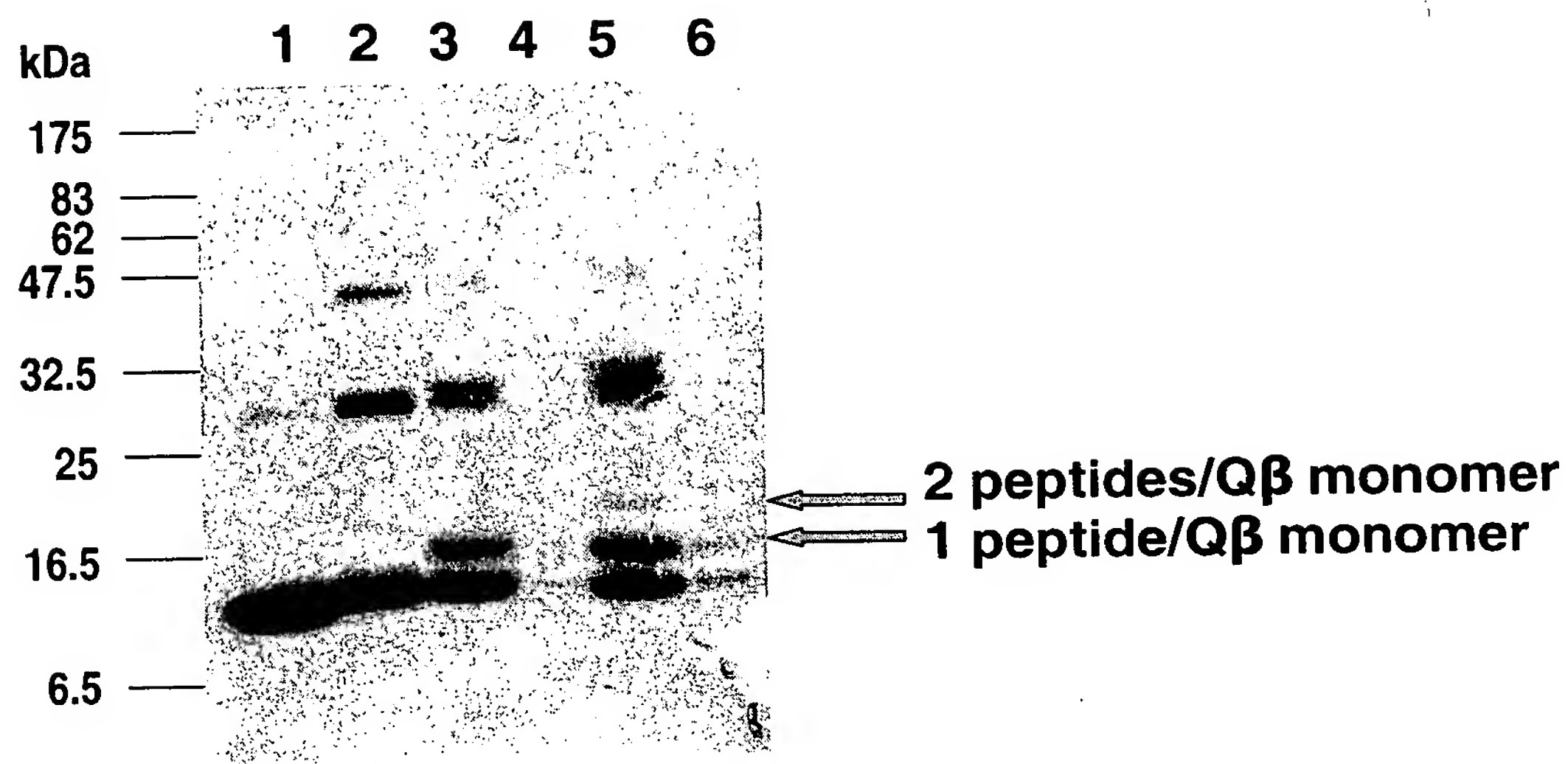


FIG. 16 A

**B**

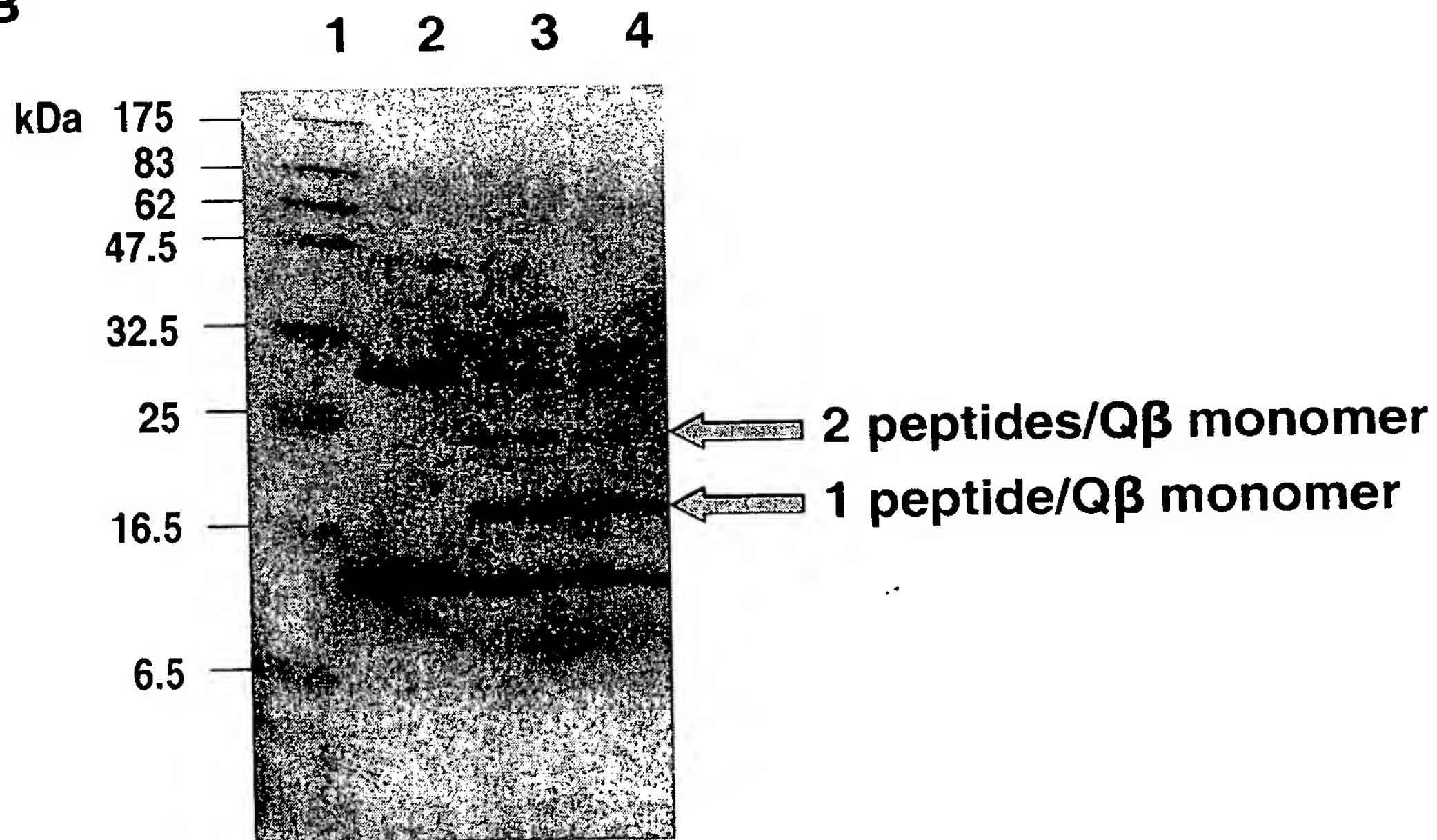
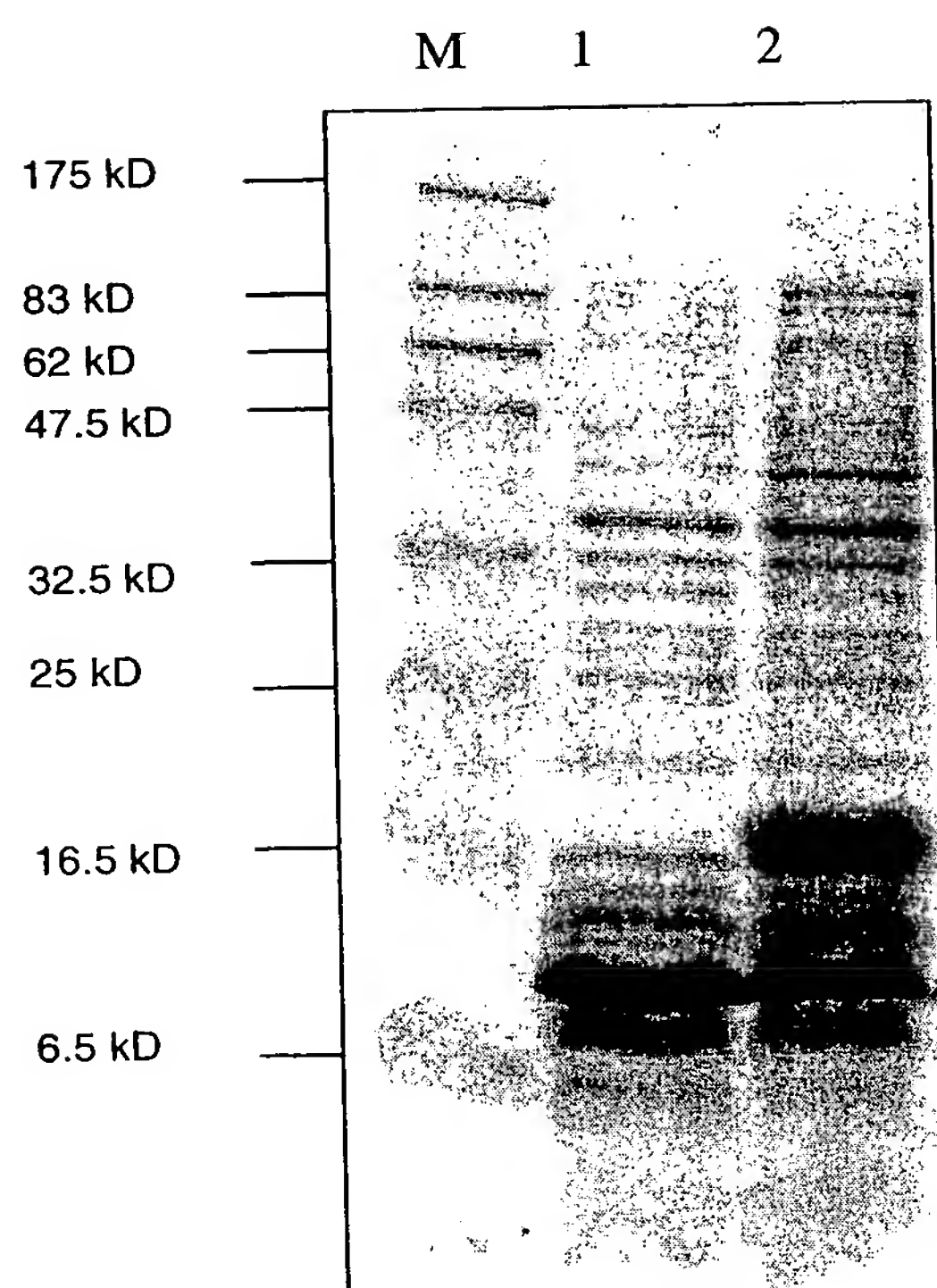


FIG. 16 B

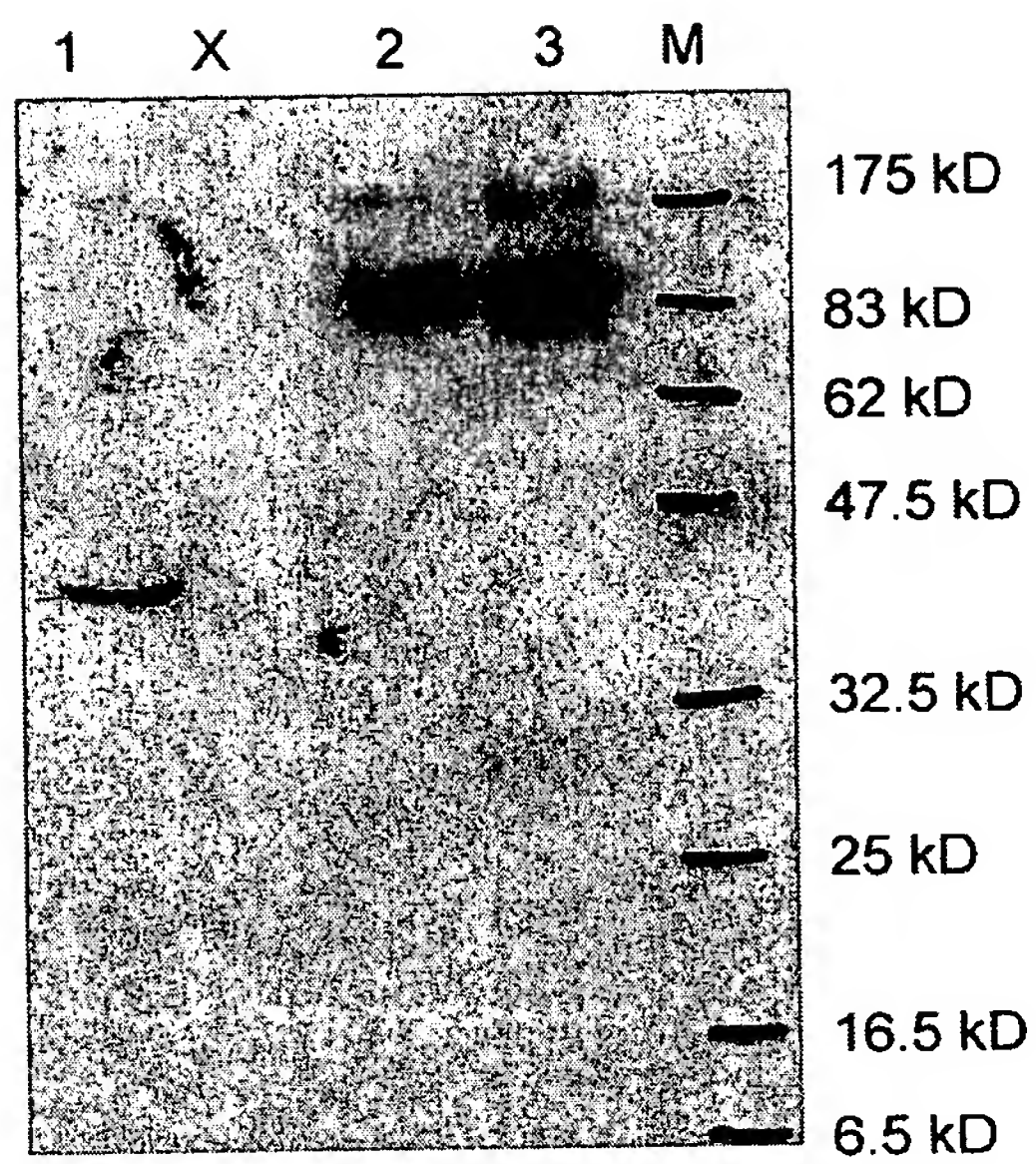
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**FIG. 17 A**



**FIG. 17 B**

# Coupling of the murine and human VEGFR-2 peptide to Pili

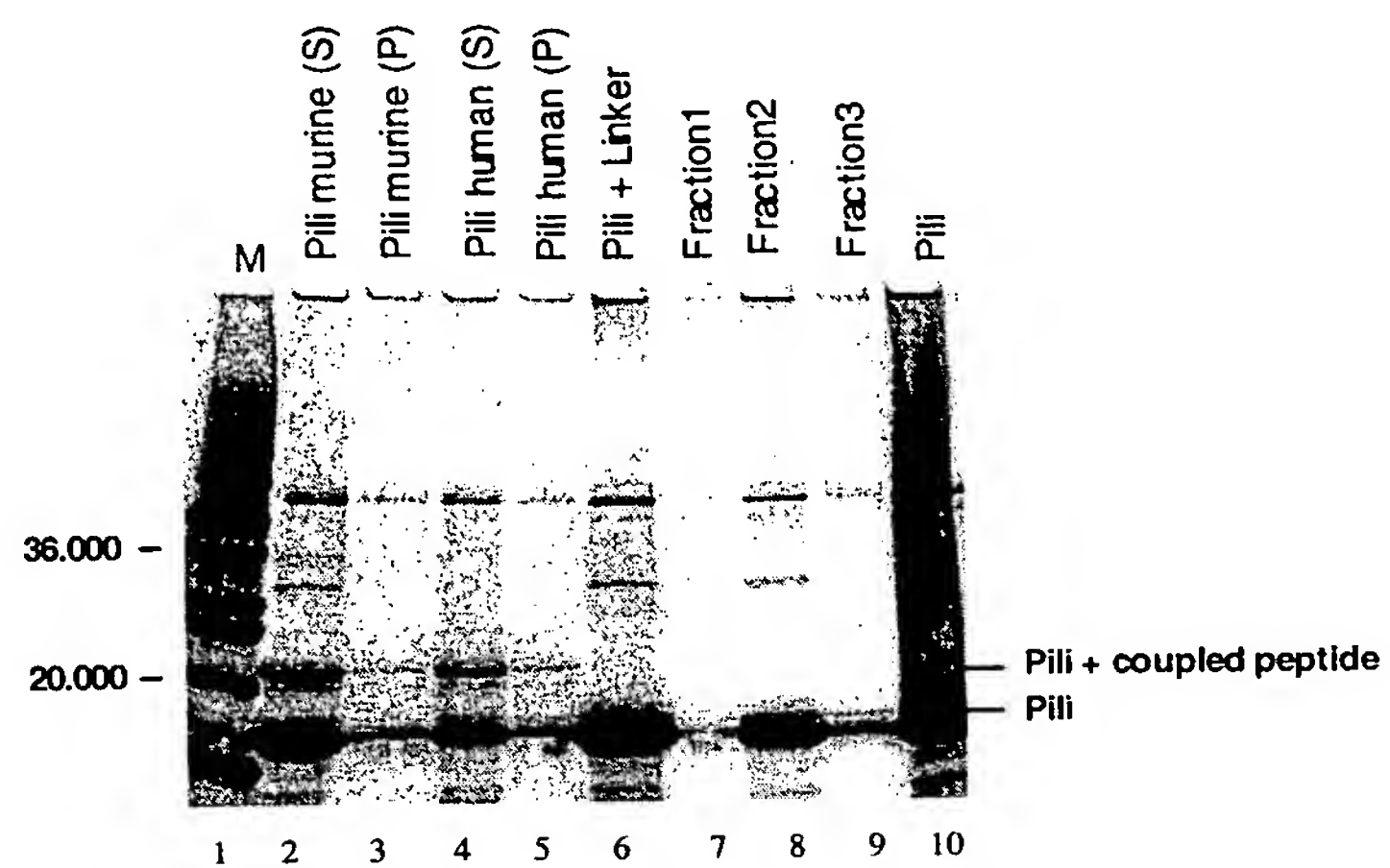


FIG. 18 A



# Coupling of the murine VEGFR-2 peptide to Q $\beta$

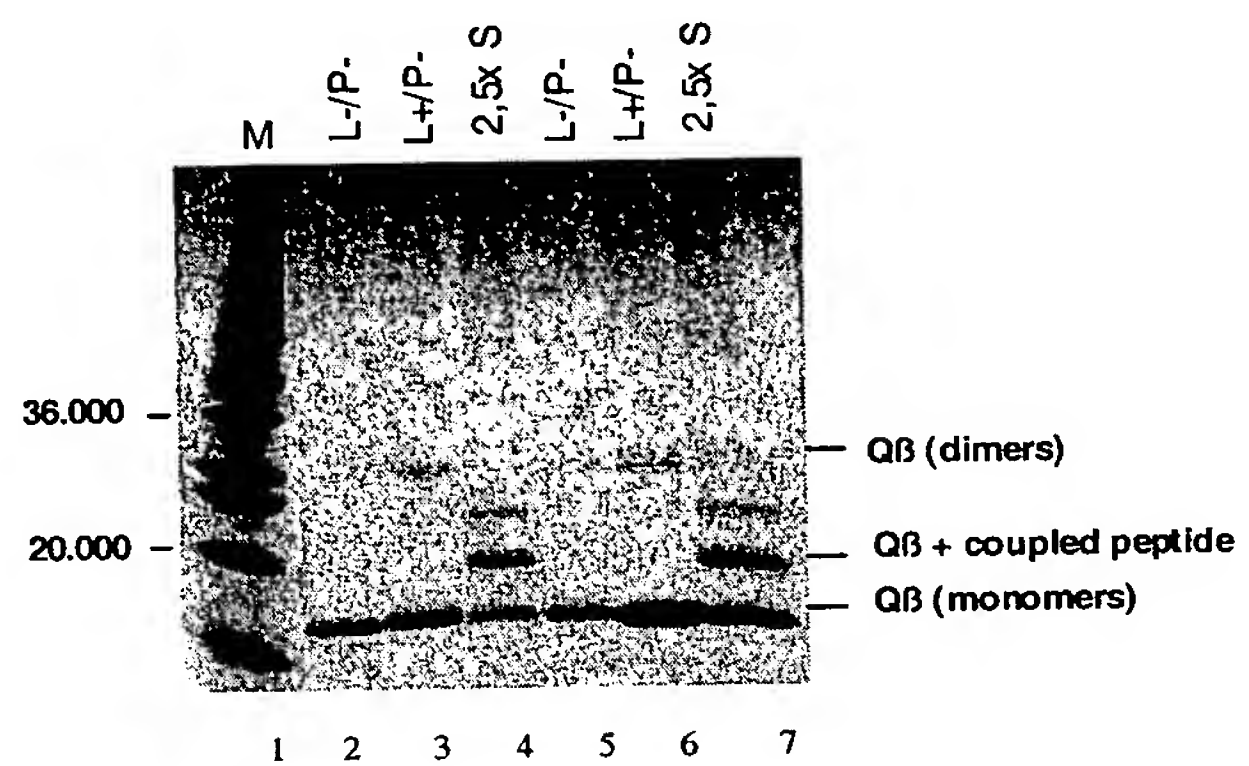


FIG. 18 B

# Coupling of the murine VEGFR-2 peptide to cys-free HbcAg

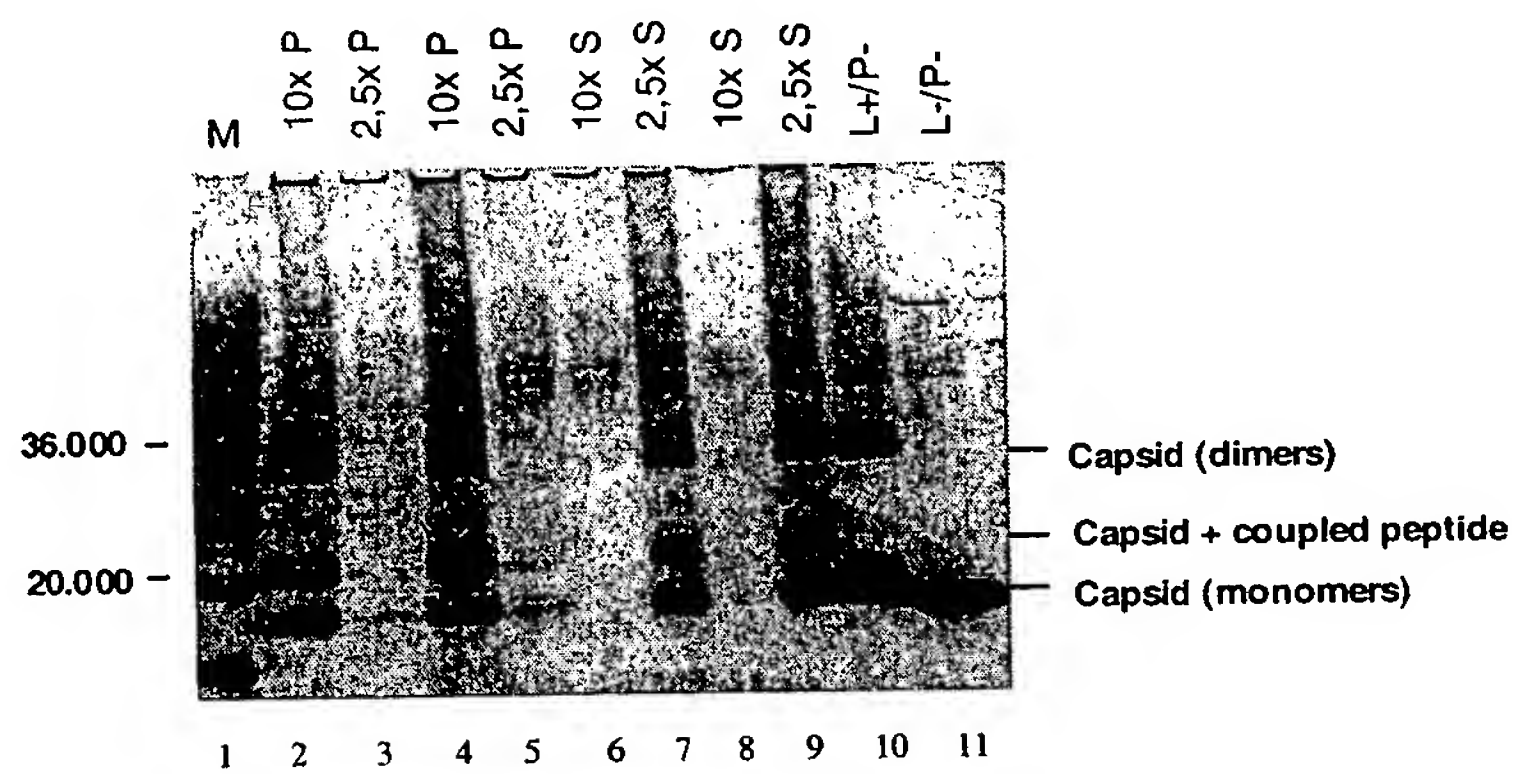


FIG. 18 C

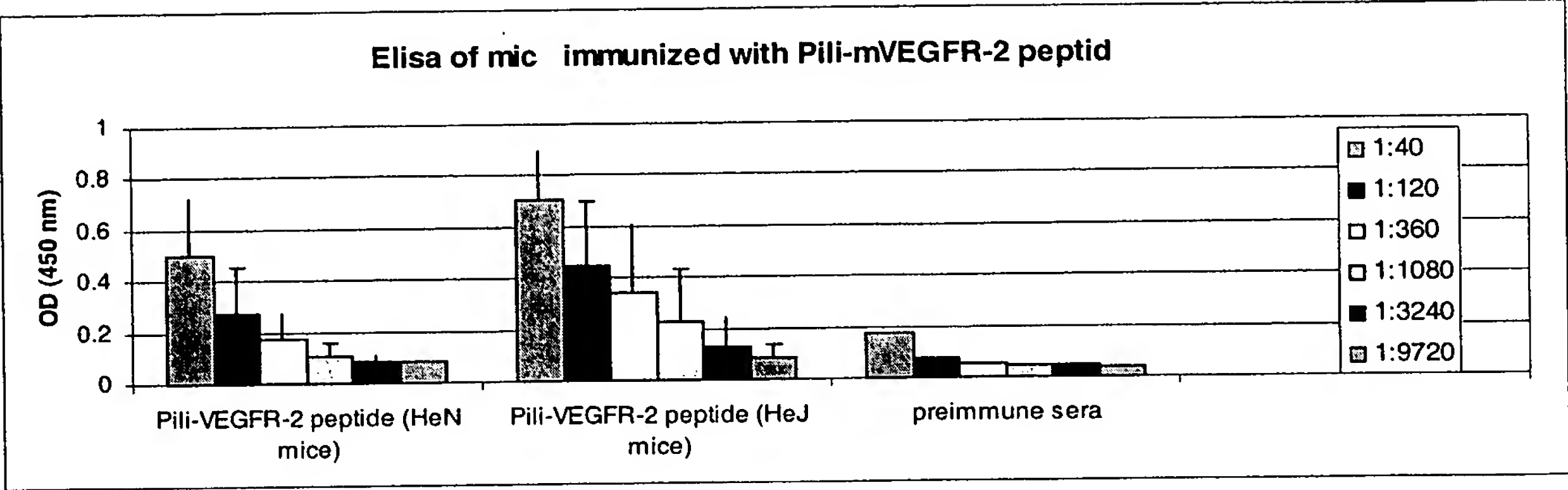
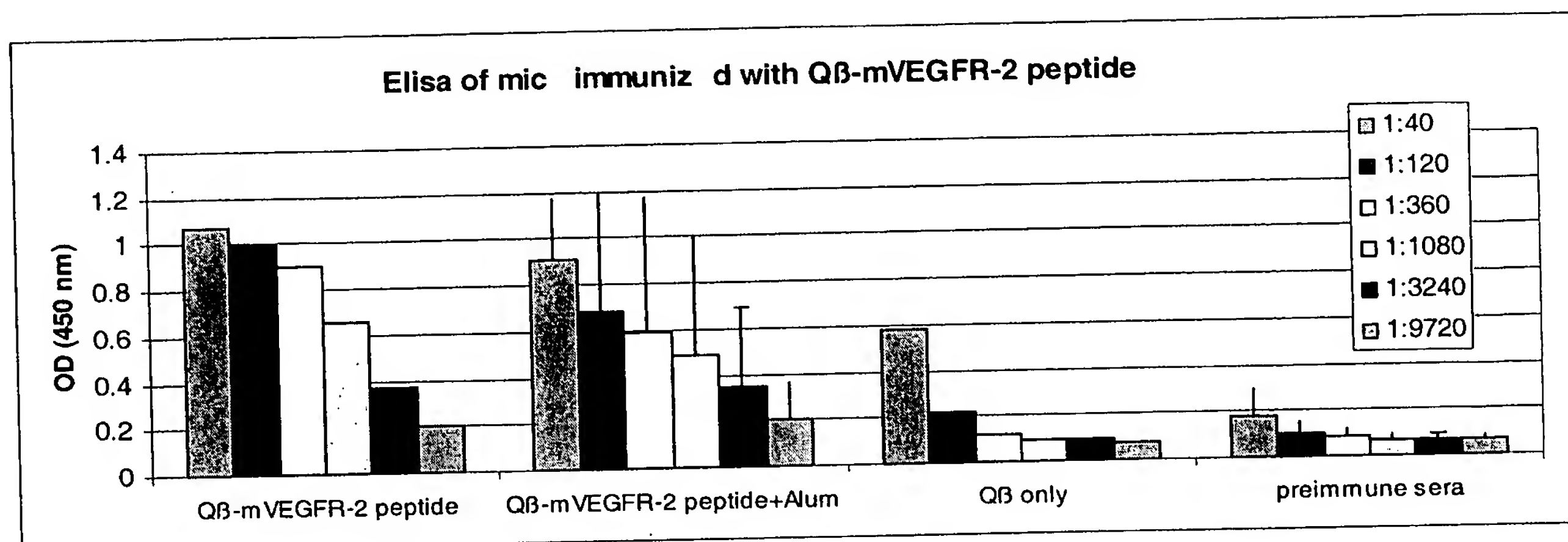


FIG. 18 D

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**FIG. 18 E**

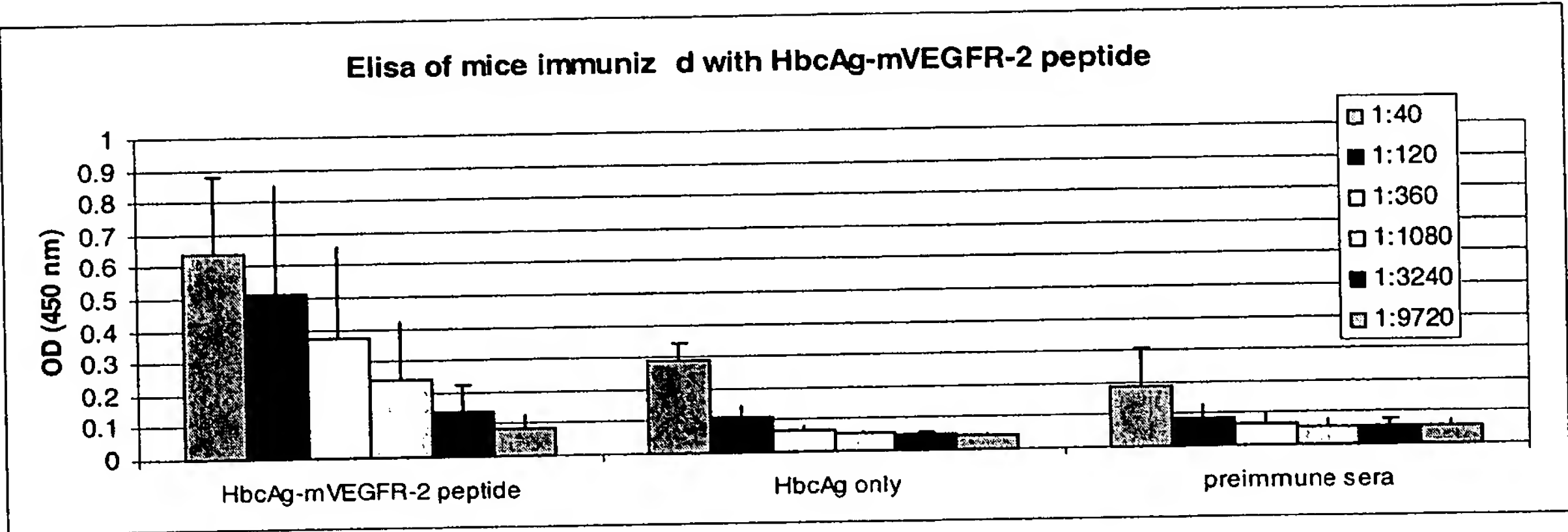
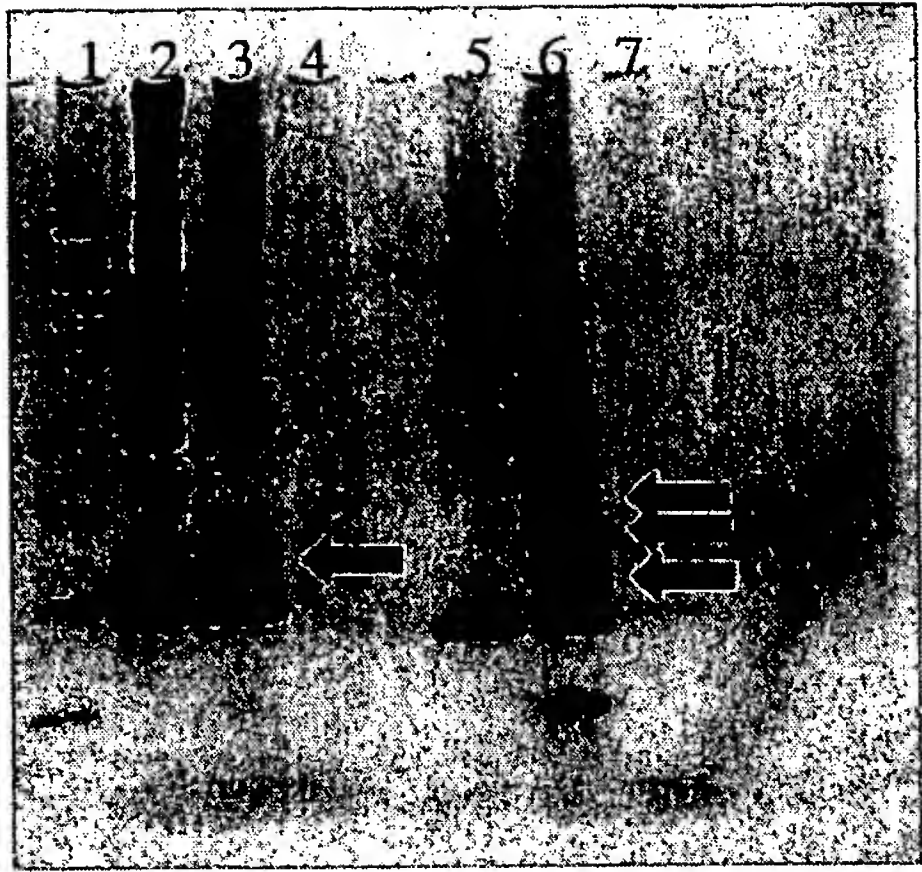


FIG. 18 F

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**FIG. 19 A**

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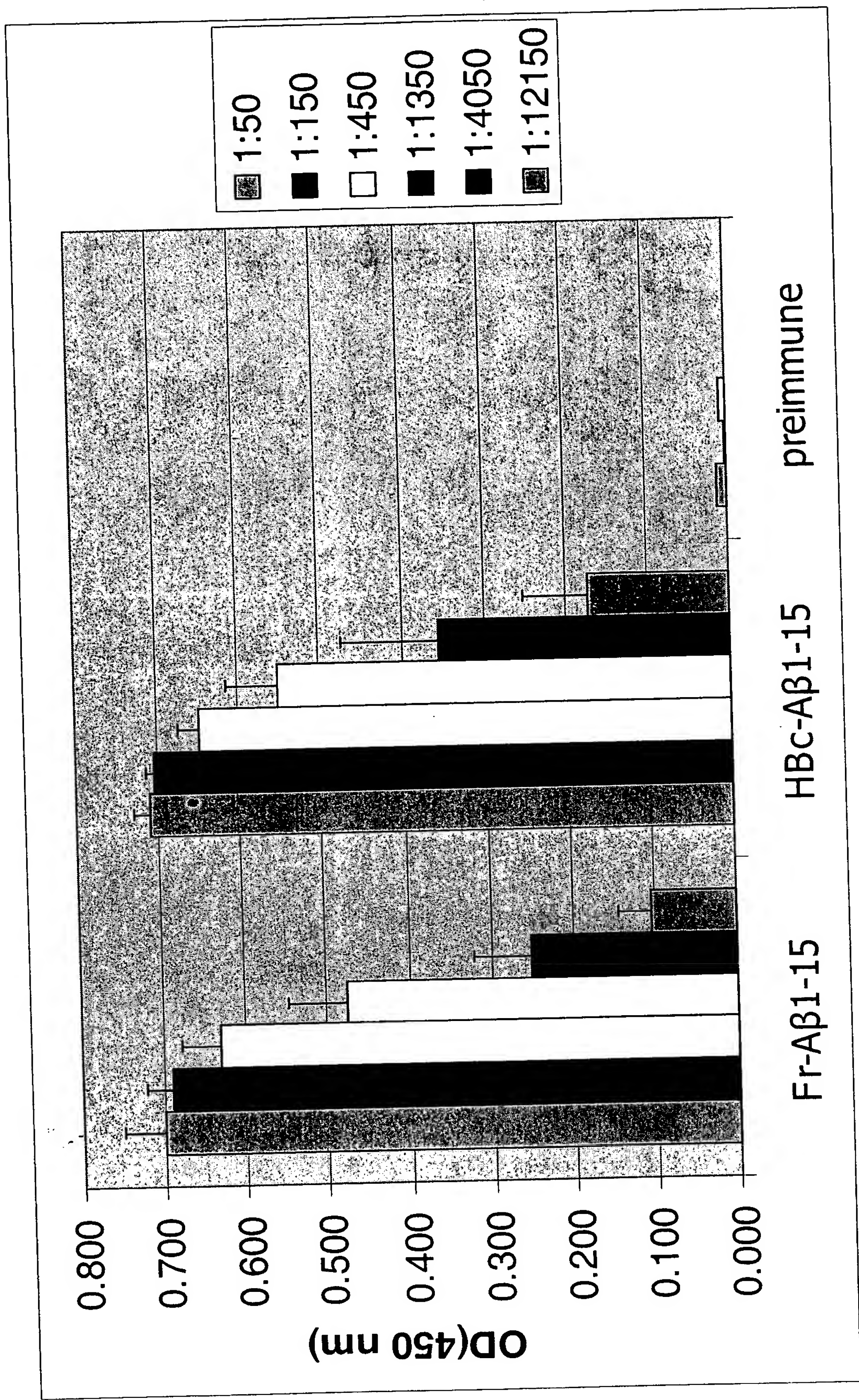
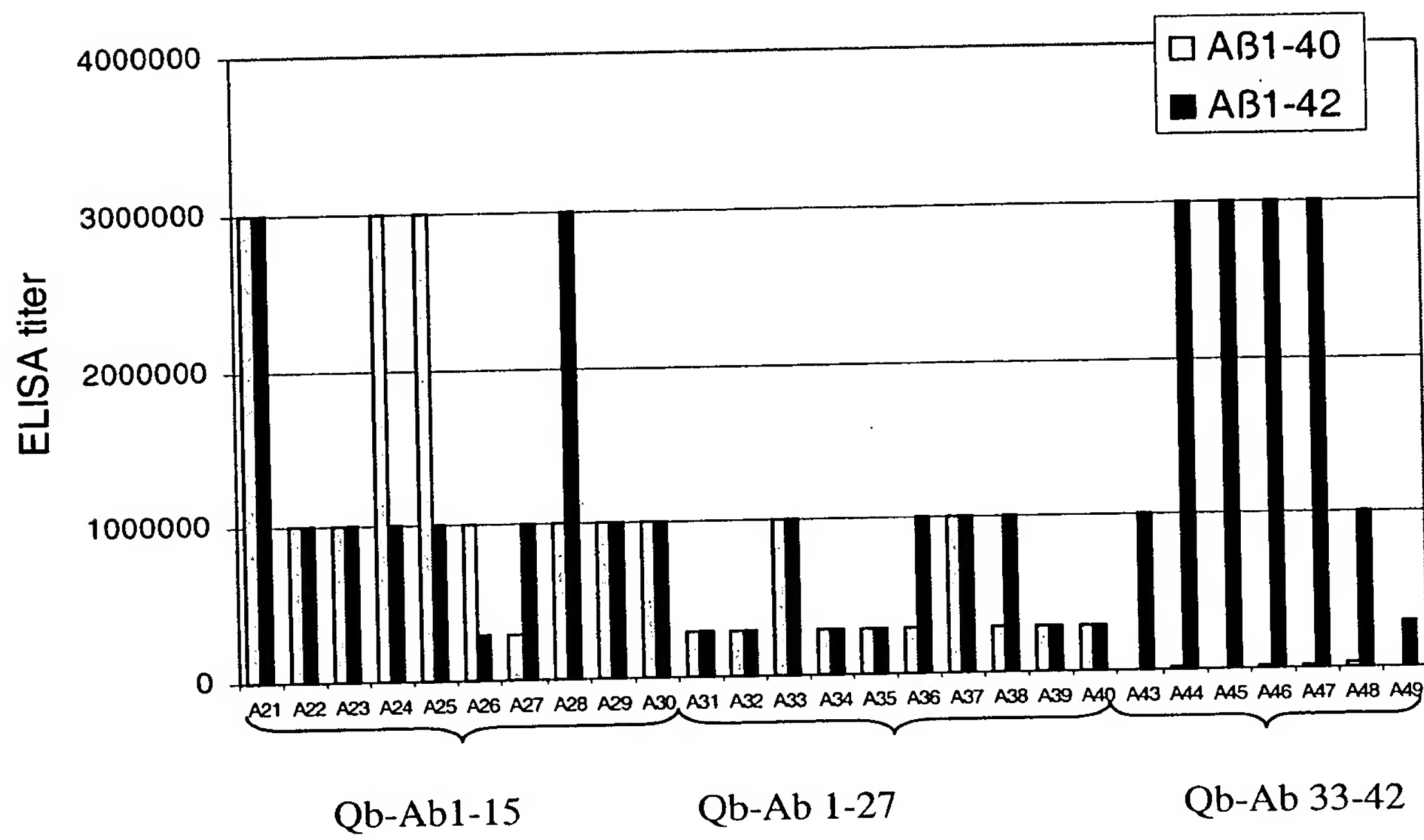


FIG. 19 B

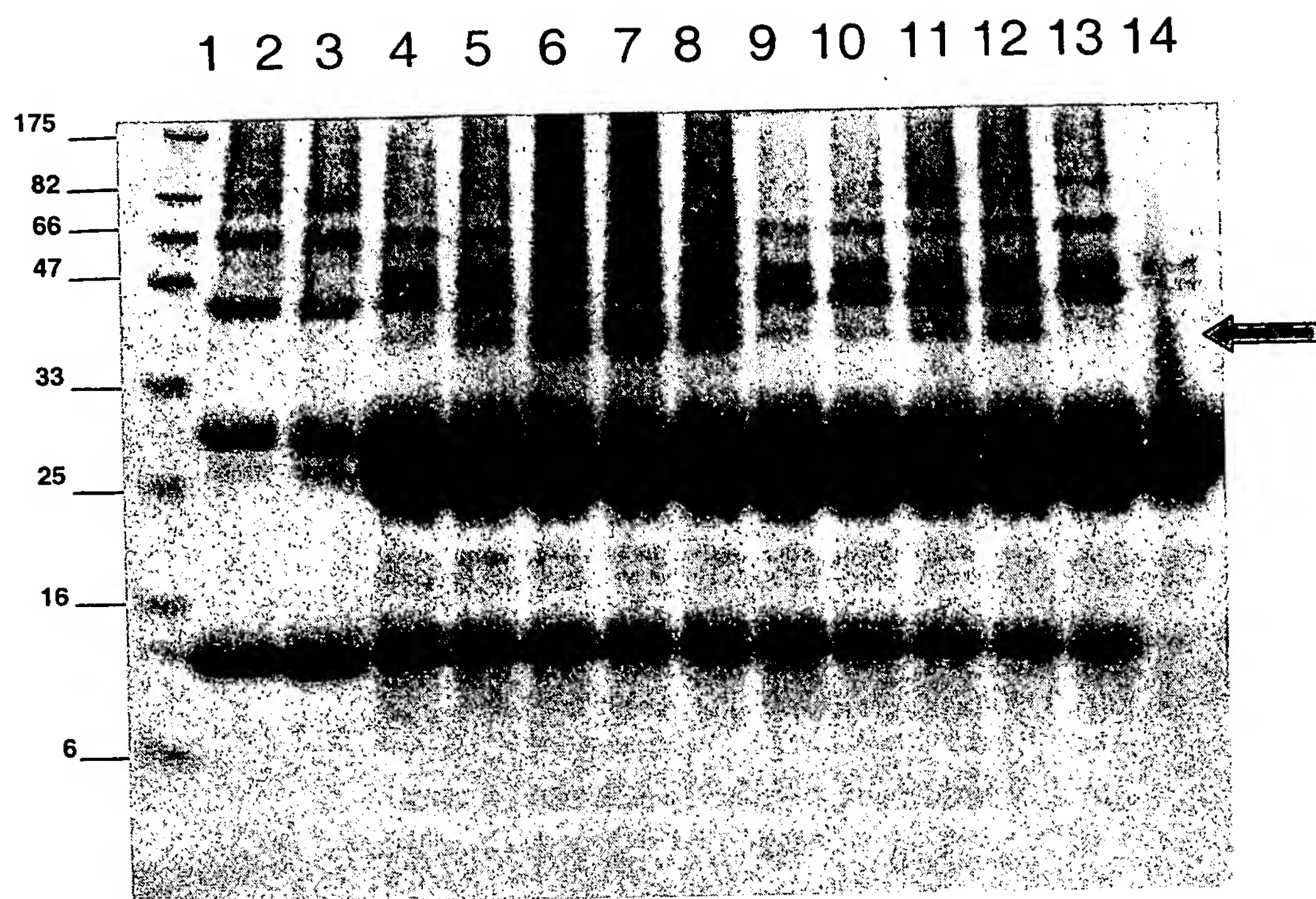
# **S rum antibody titers in vaccinated APP23 mice**



**FIG. 20**



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**FIG. 21**

Fig Qb mut S-MBS Flag

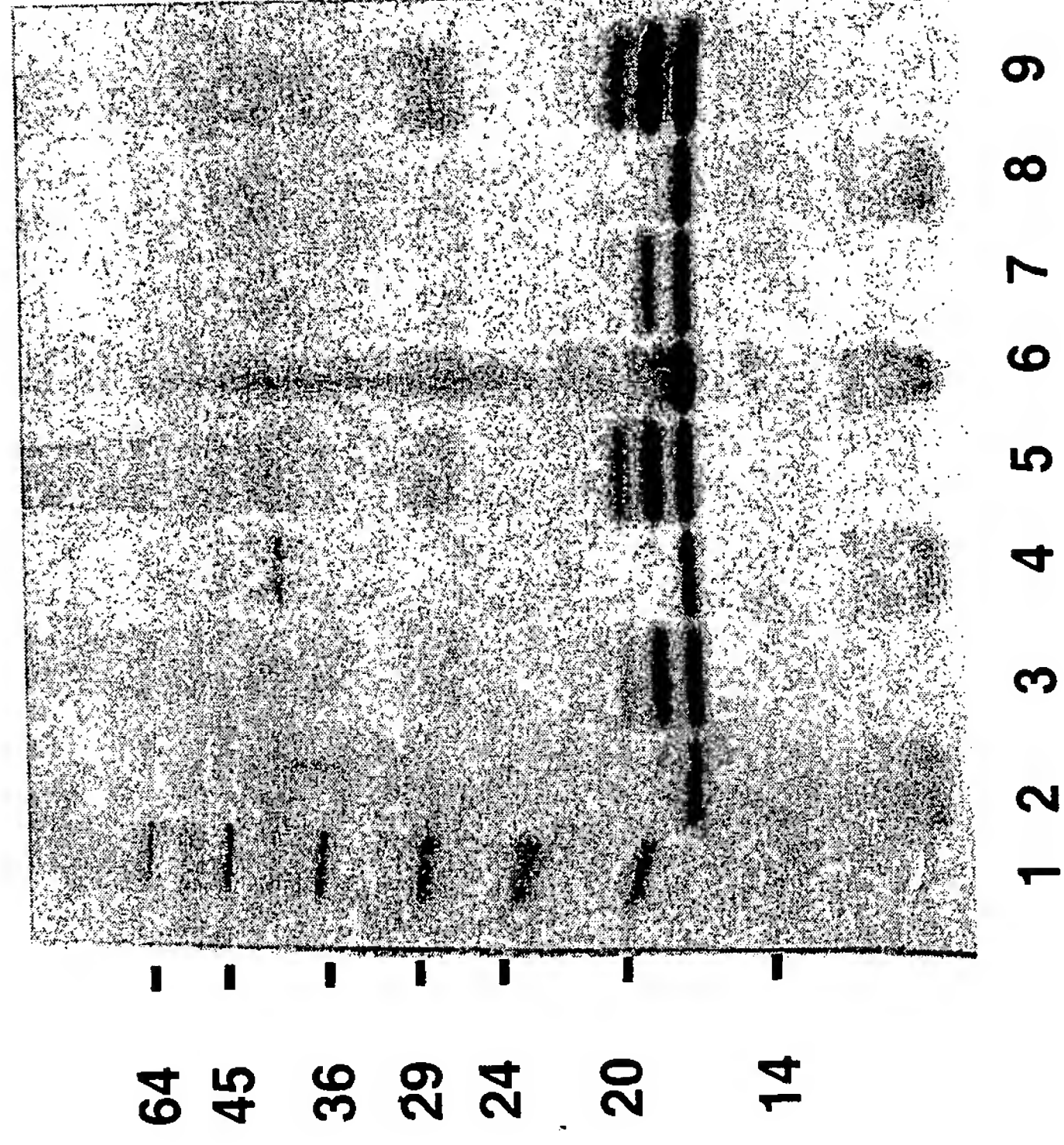


FIG. 22 A

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Fig Qb mut SGMBS Flag

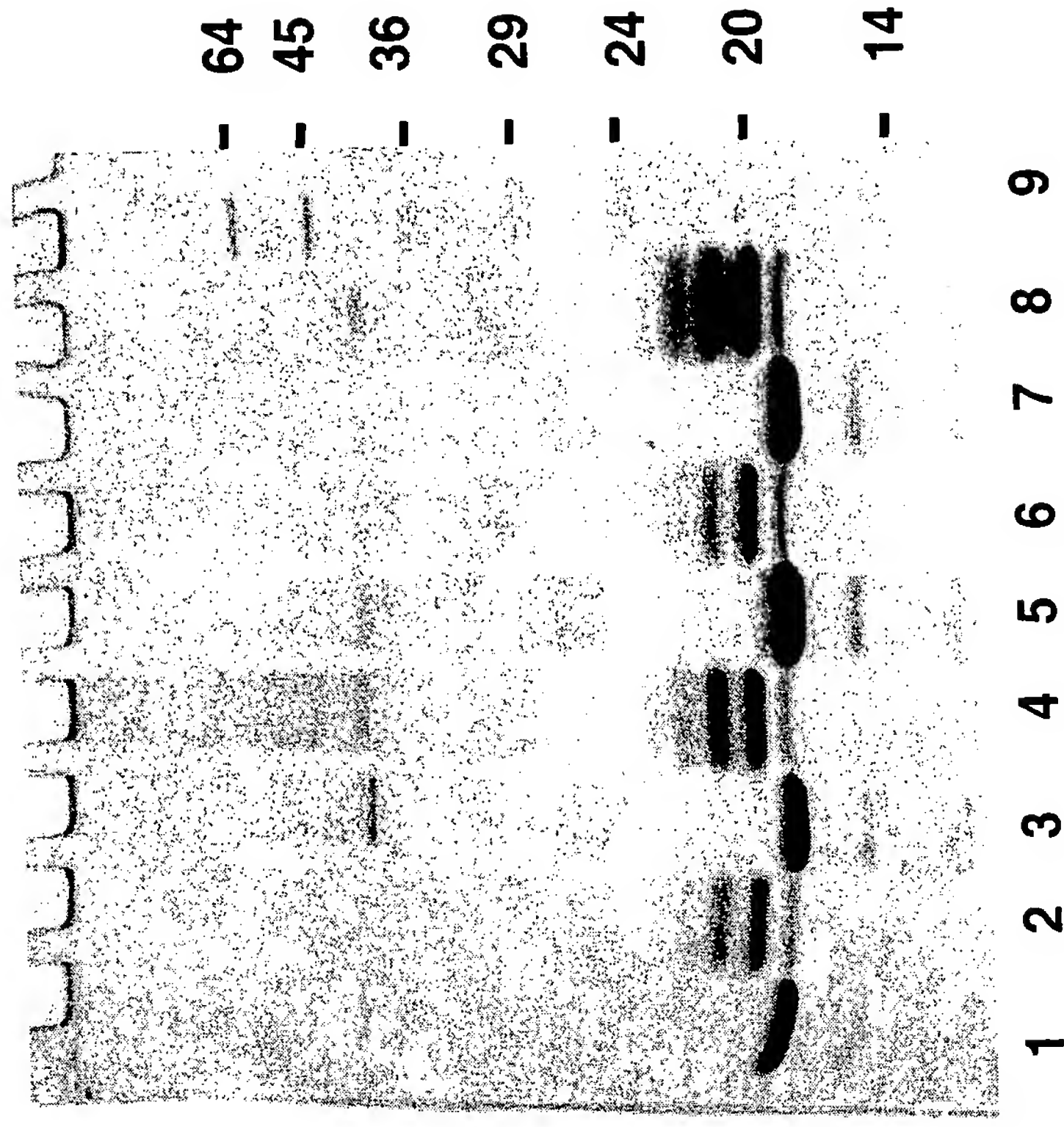


FIG. 22 B



Fig Qb mut SMPH Flag

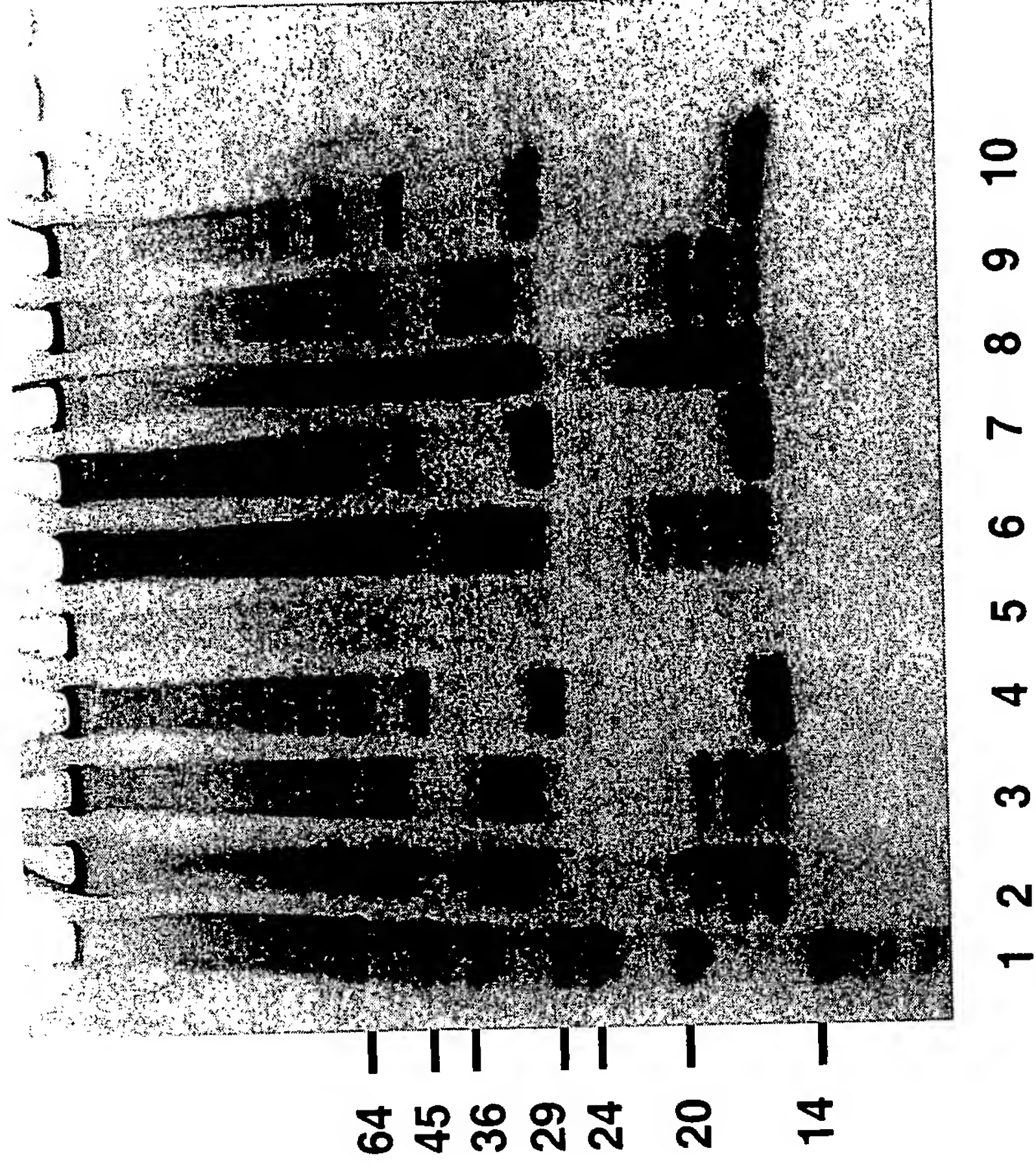


FIG. 22 C

Fig Q $\beta$  mutants-PLA<sub>2</sub>-Cys

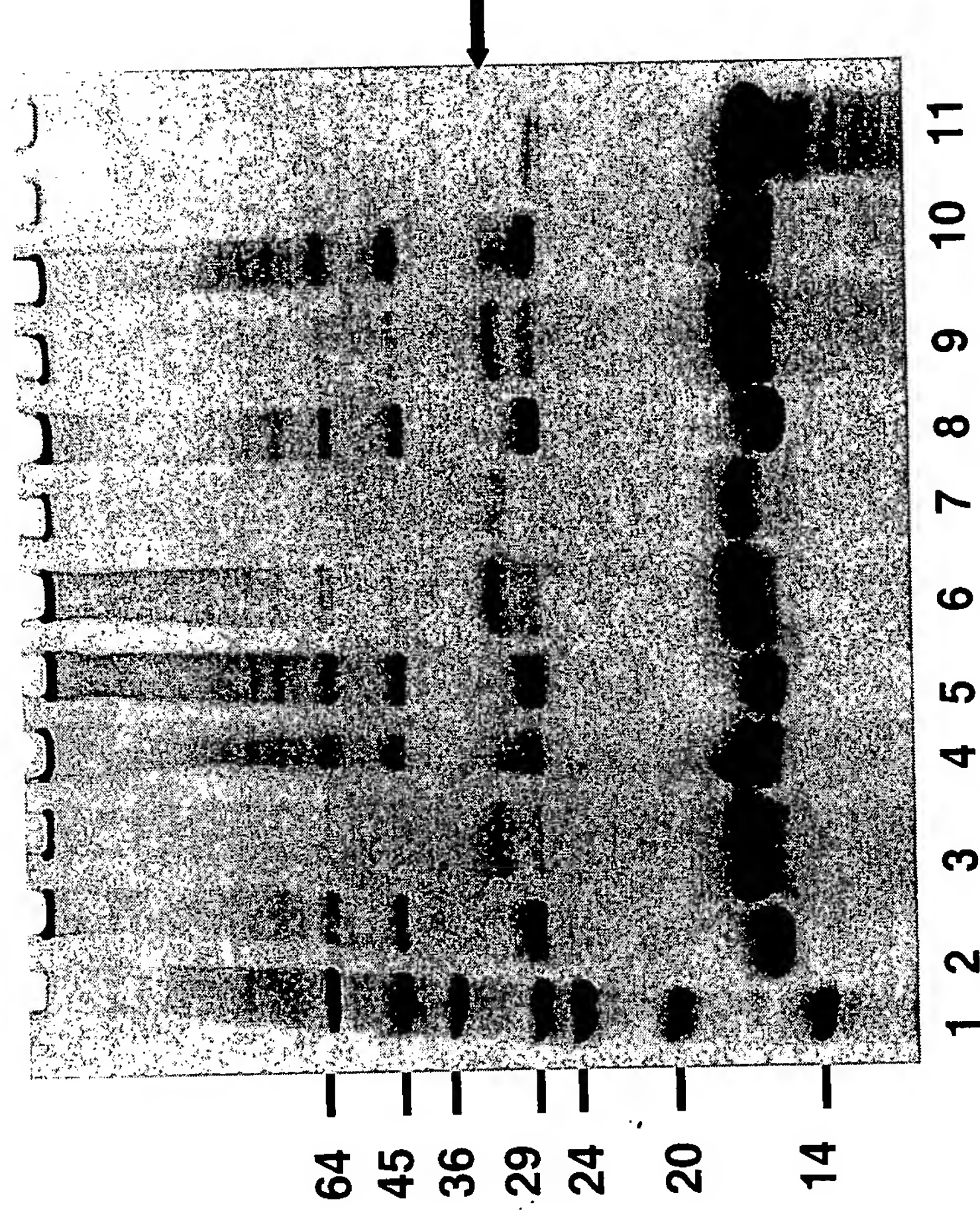
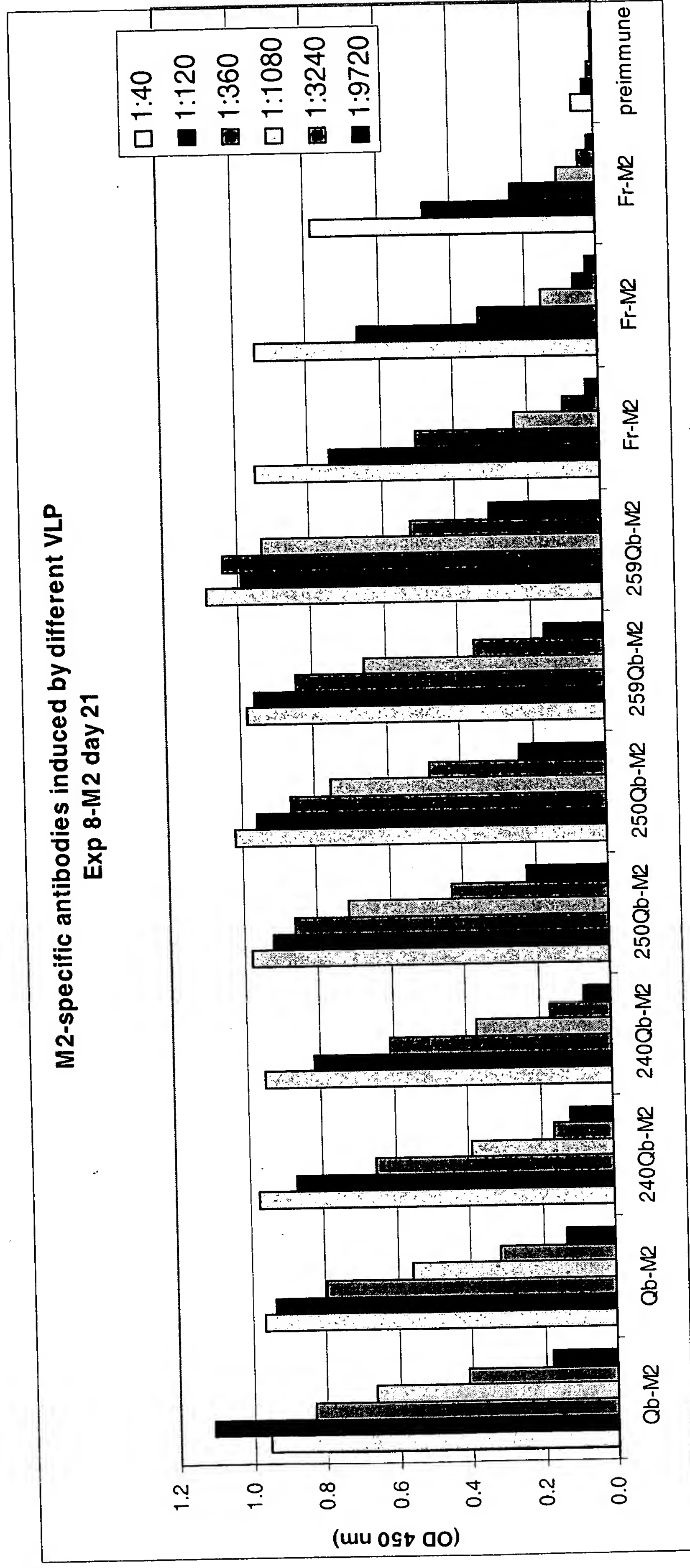


FIG. 22 D

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**FIG. 23**



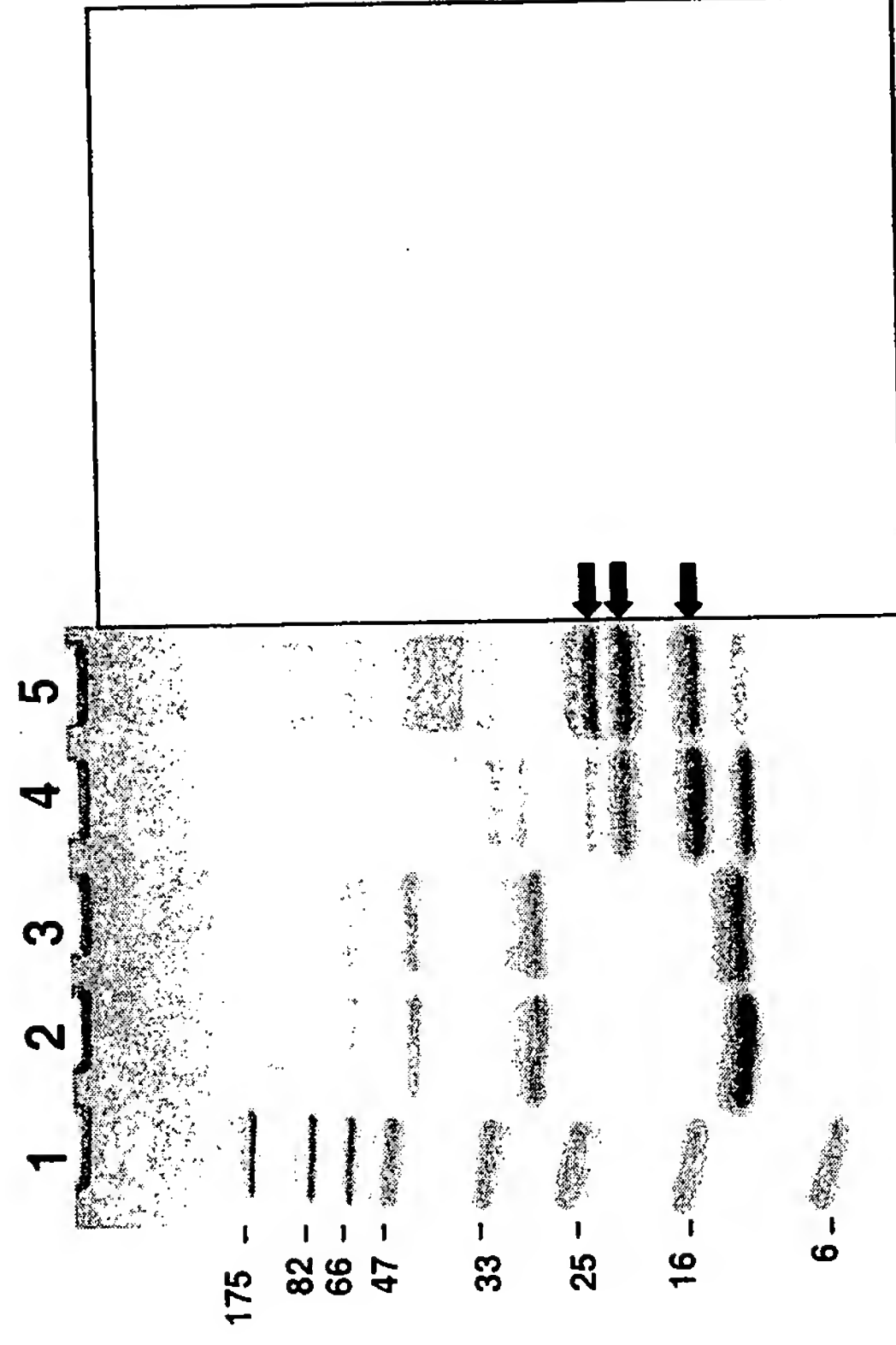
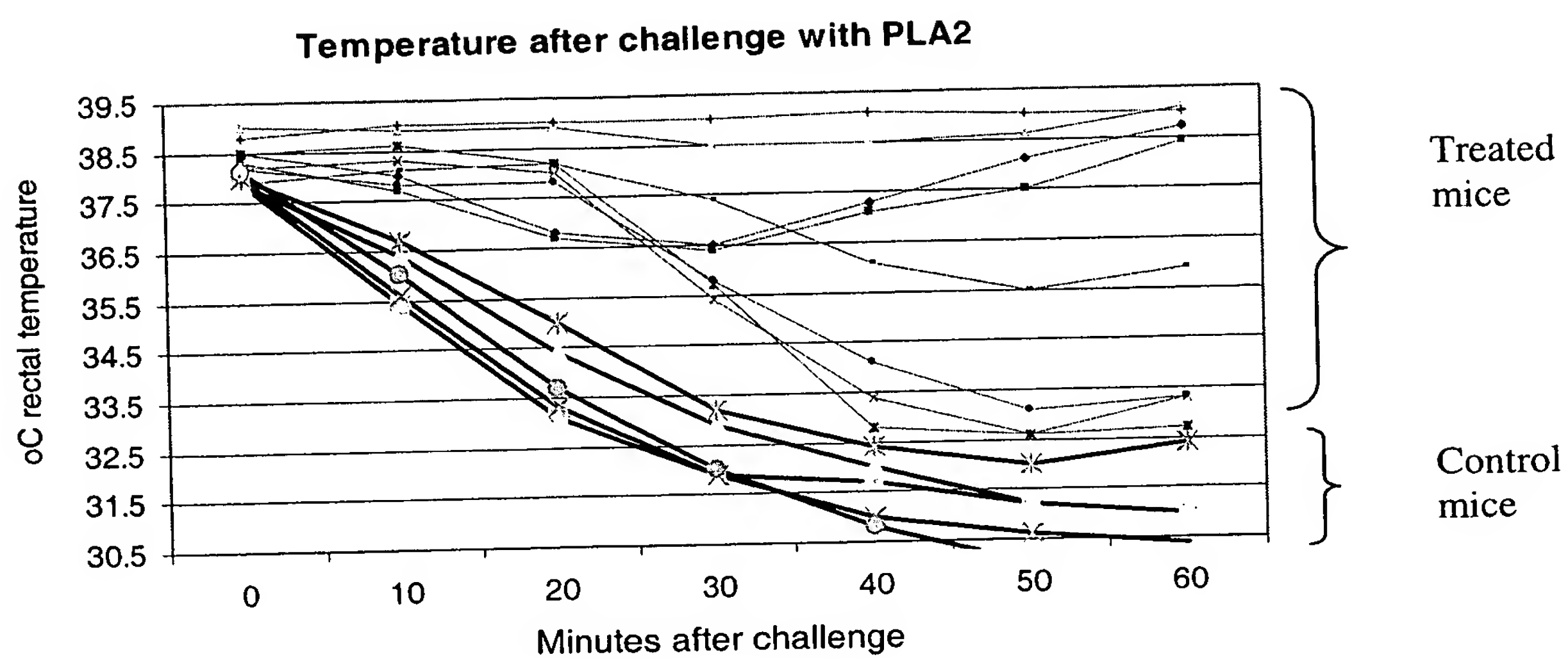


FIG. 24



**FIG. 25 A**



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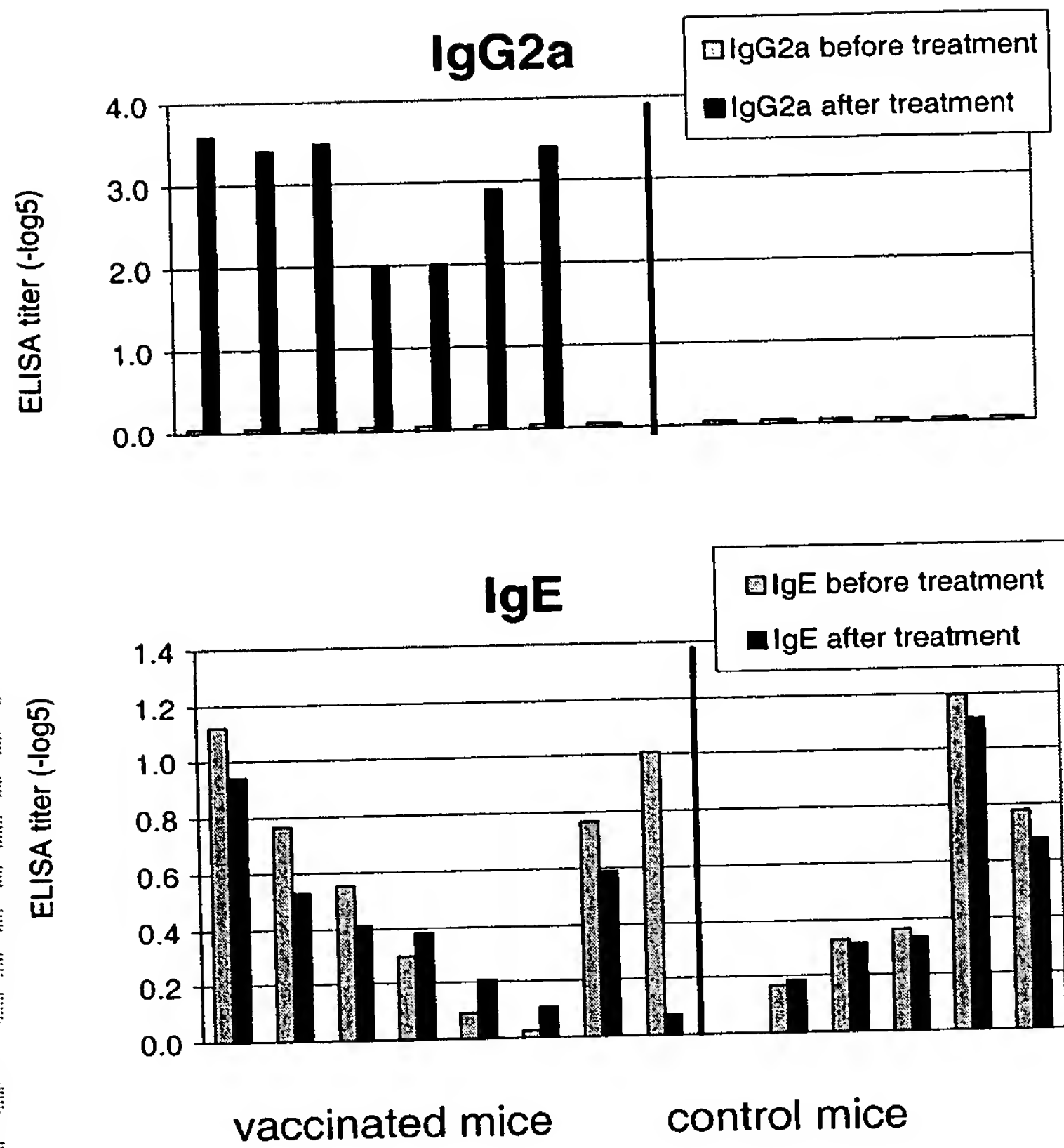


FIG. 25 B

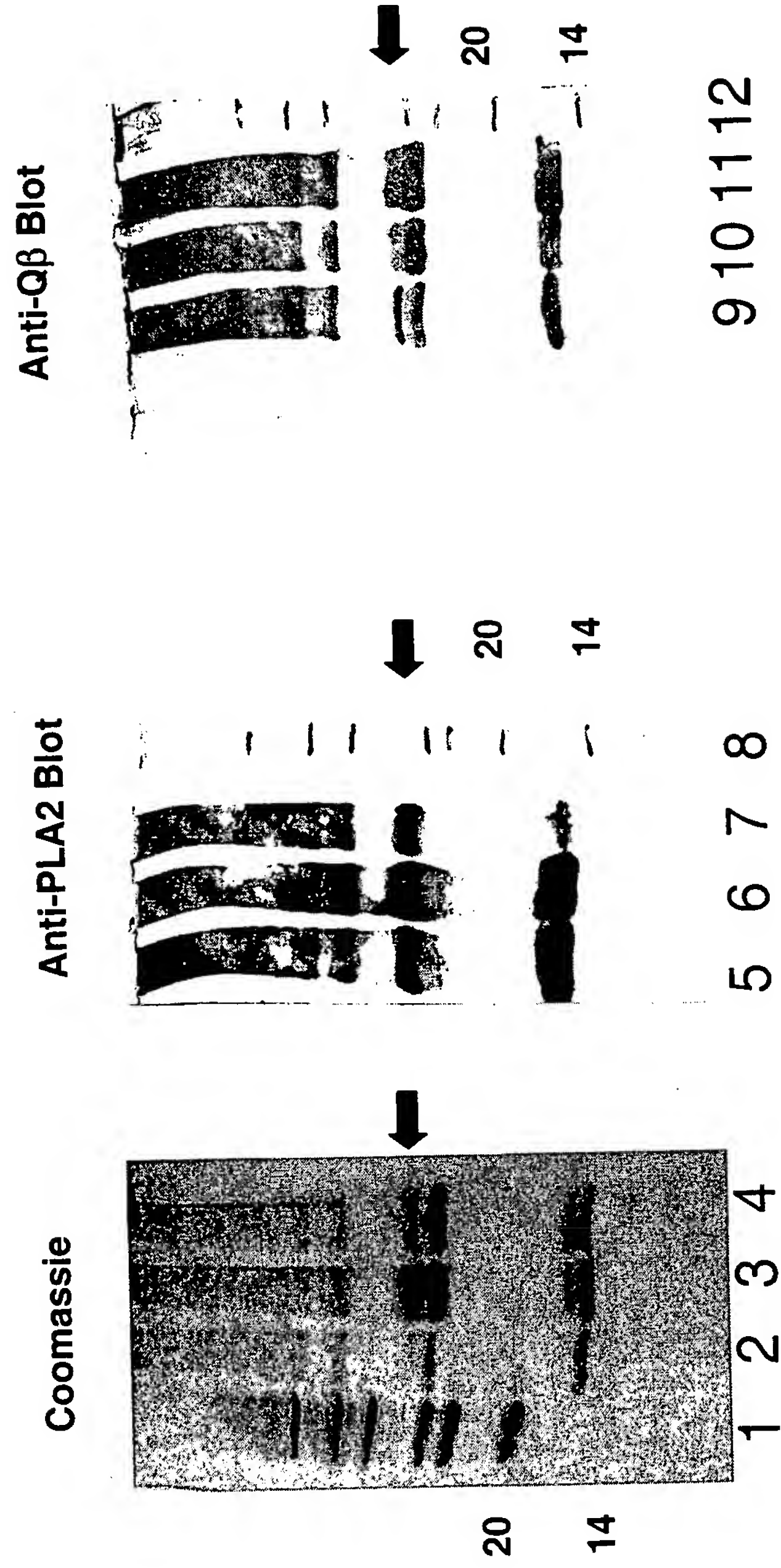


FIG. 26

# IgG-titers against M2 peptide

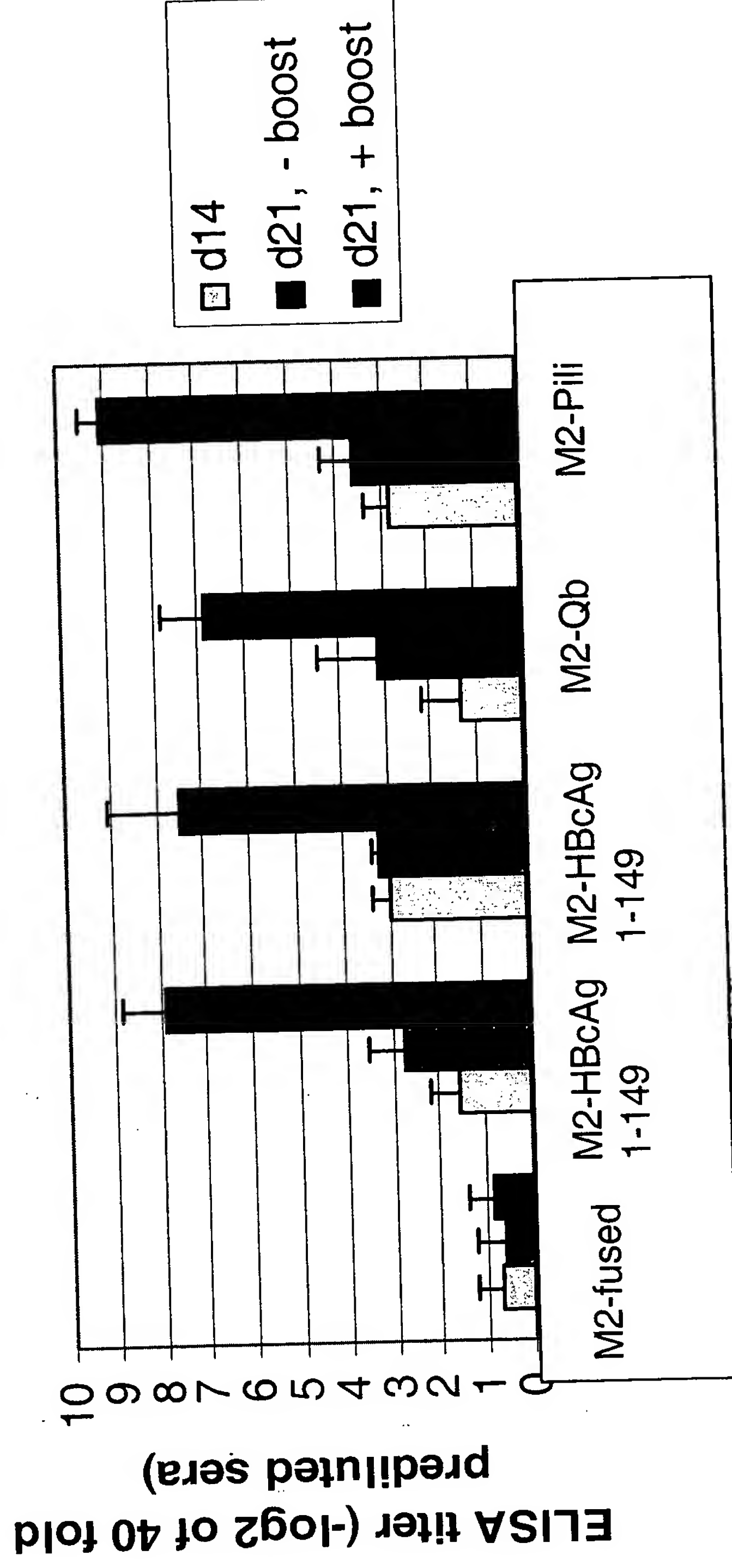
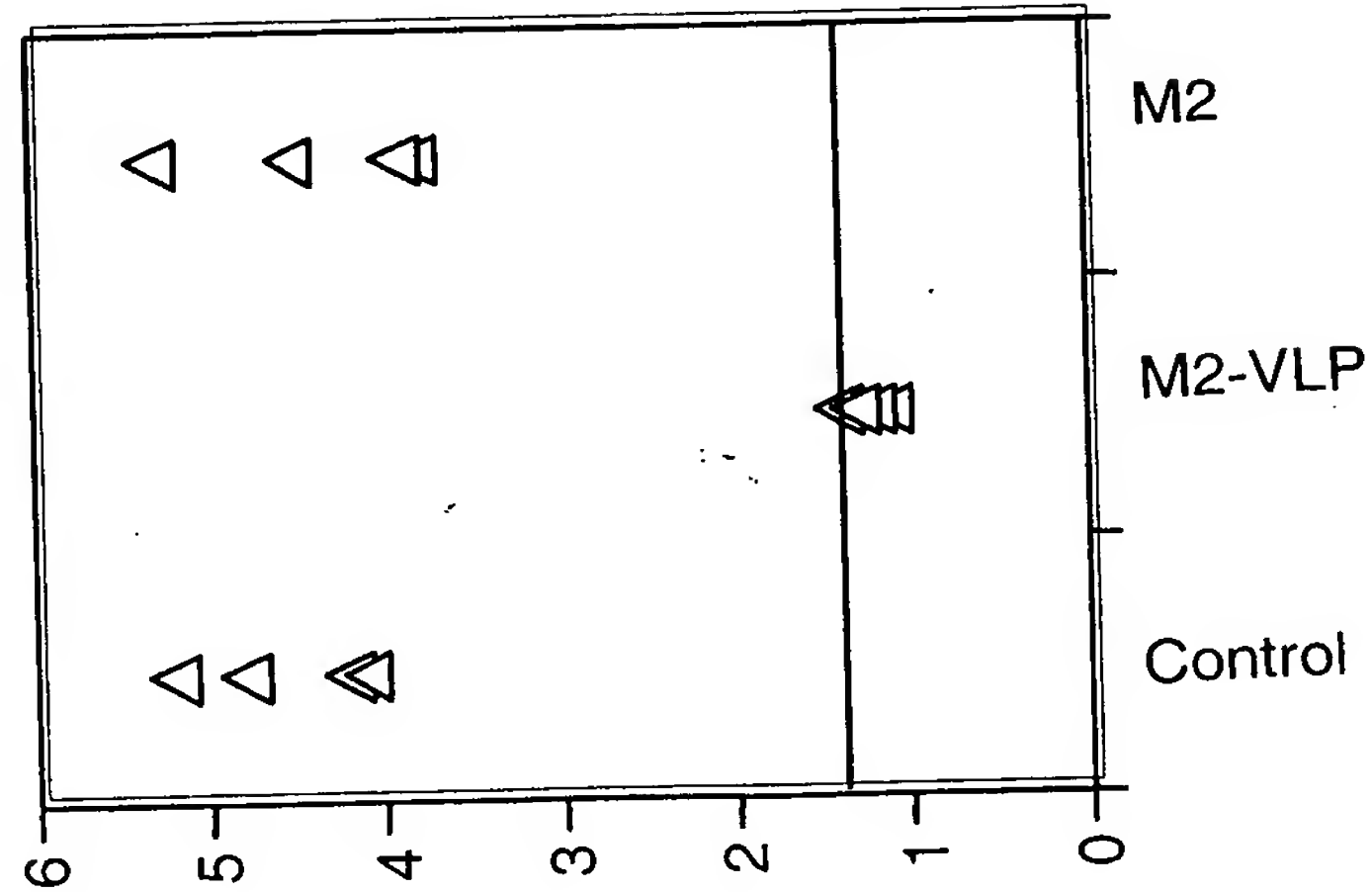


FIG. 27 A



Survival of mice vaccinated intravenously  
followed by a lethal influenza A challenge

Immunization	Survival
M2 coupled to VLP	6/6
M2 fused to VLP	0/3
Control	0/6

FIG. 27 B

2005-01-19 10:00:00

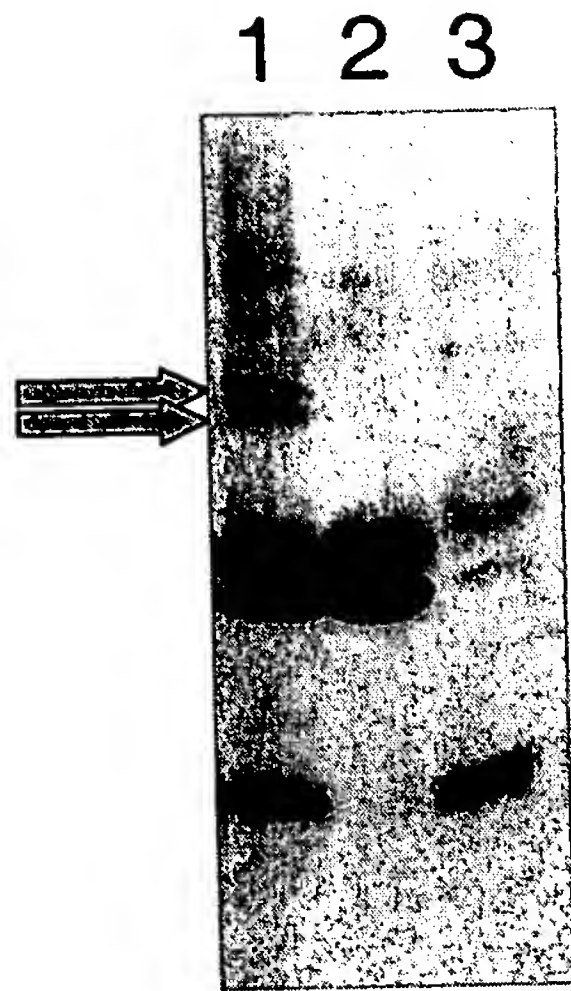


FIG. 28 A

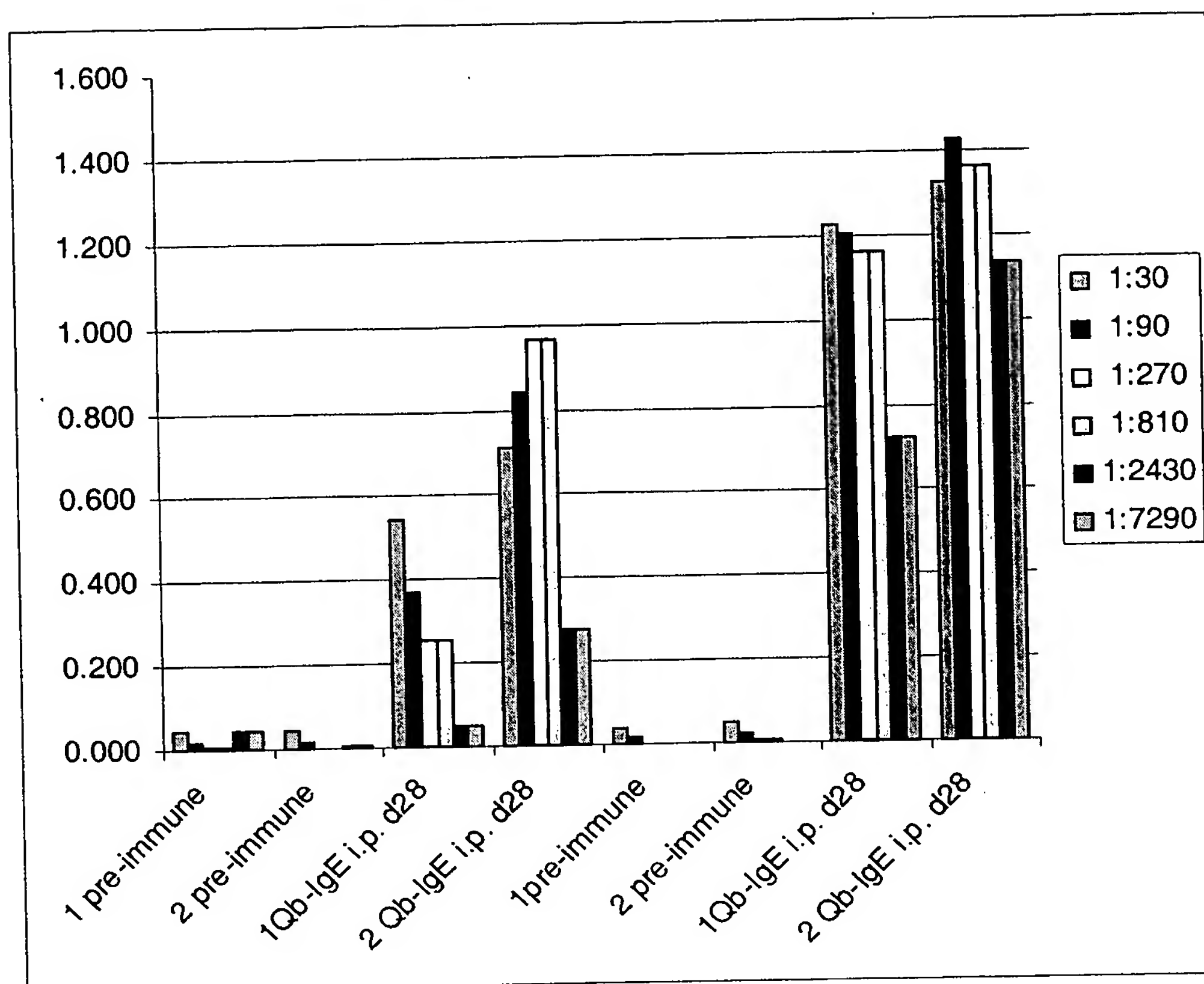


FIG. 28 B